

FIG. 1

102

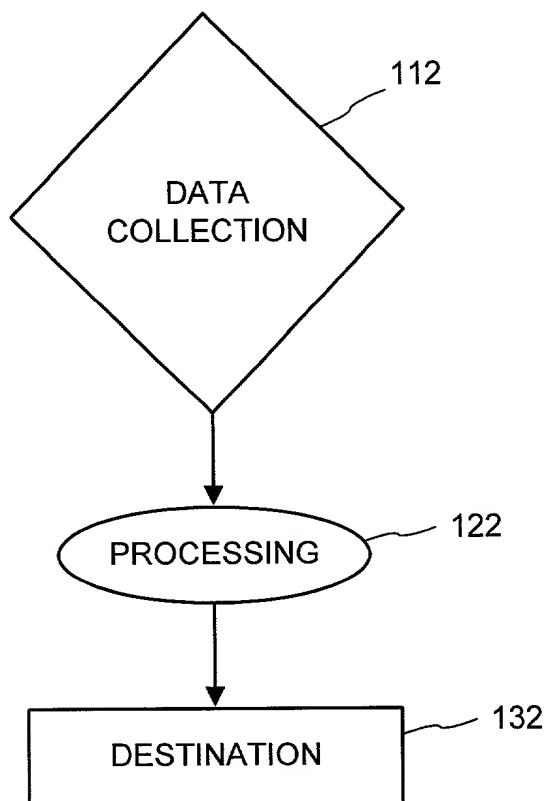


FIG. 2

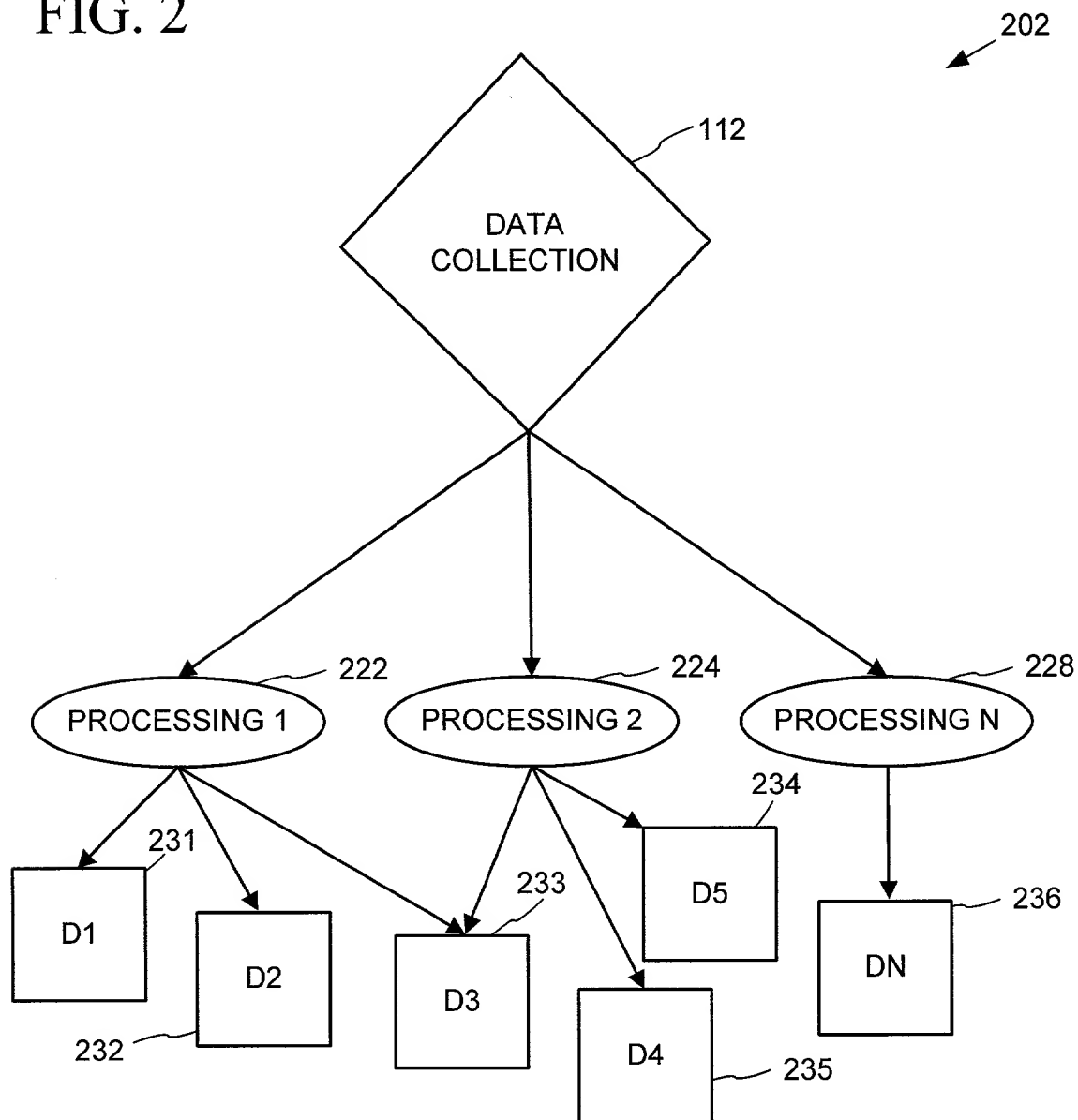


FIG. 3

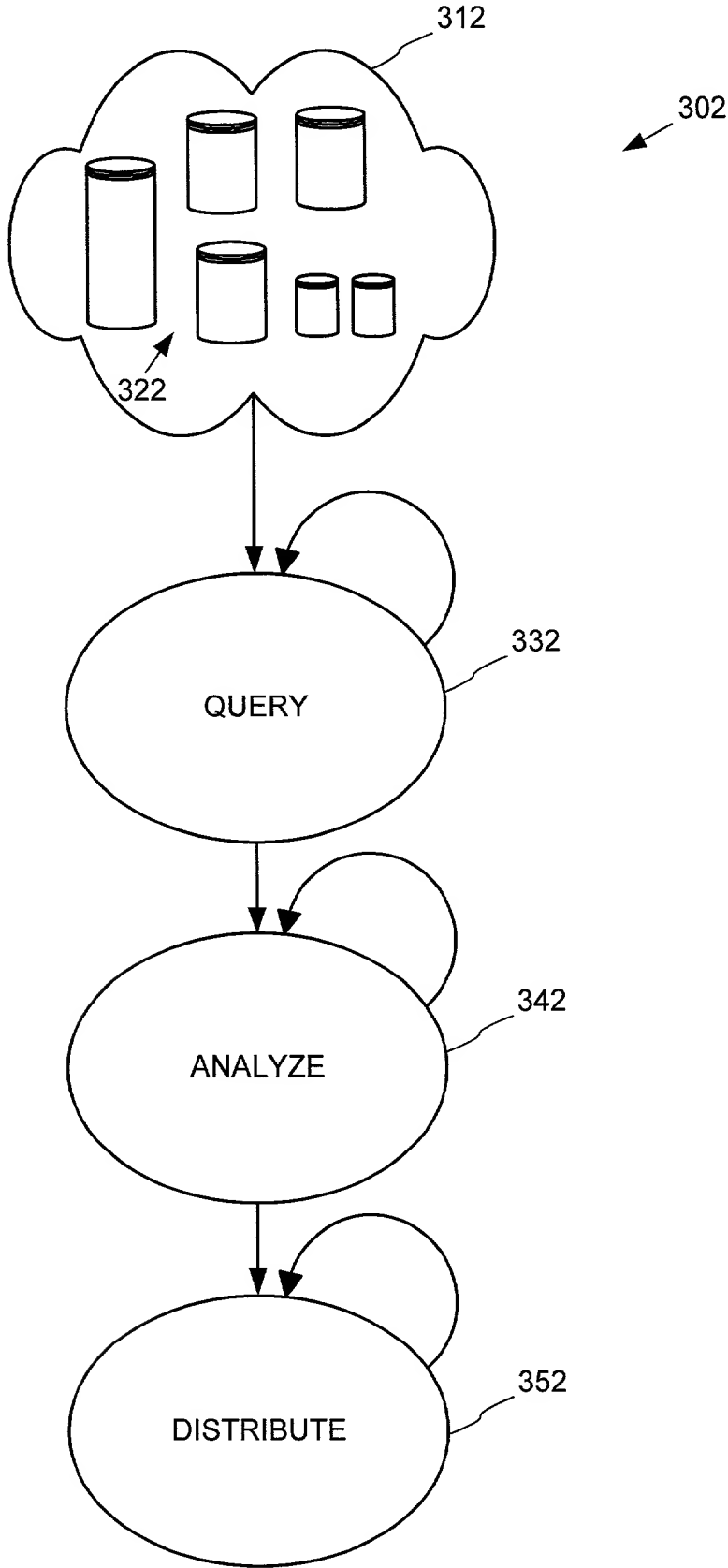


FIG. 4

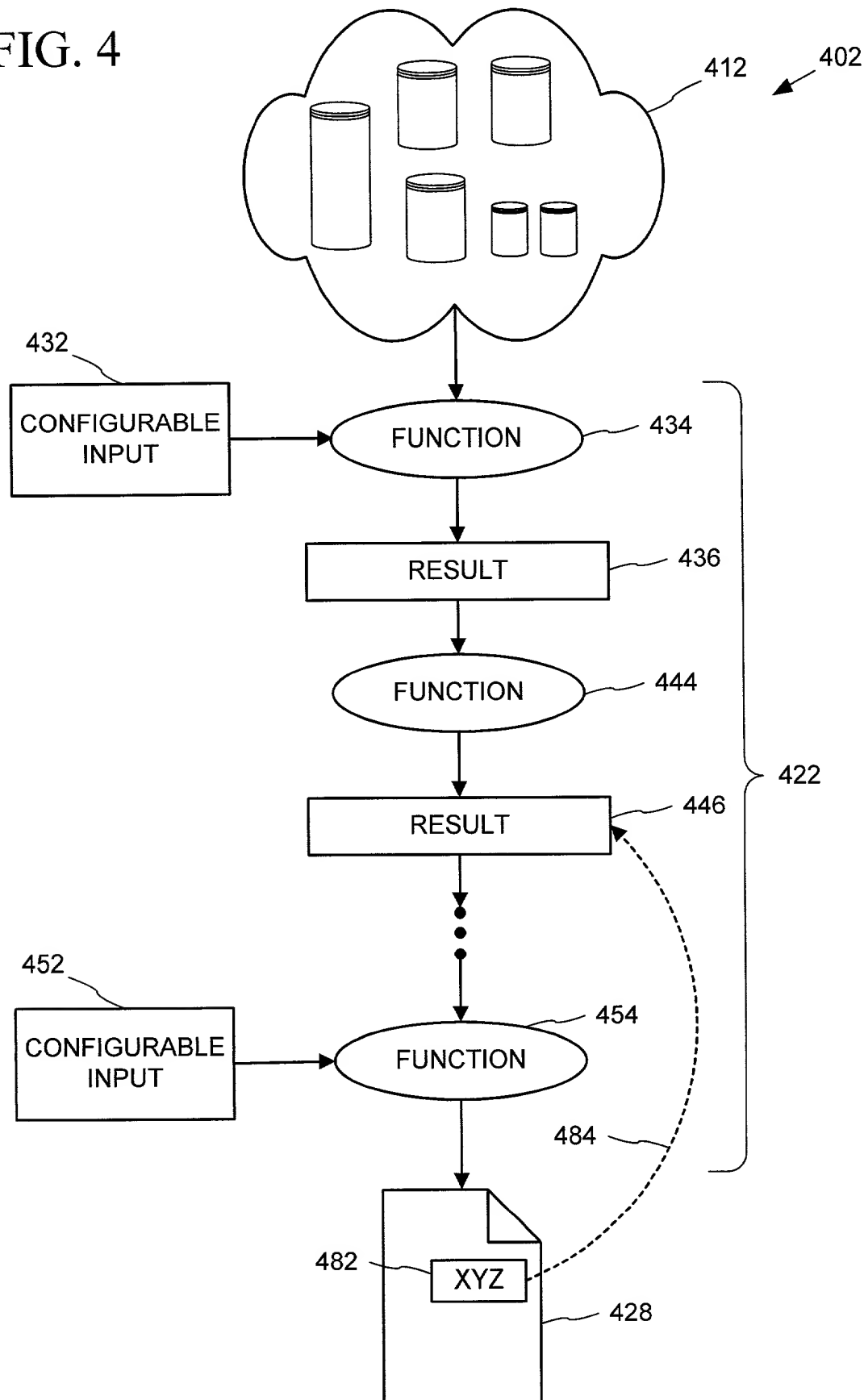


FIG. 5

502

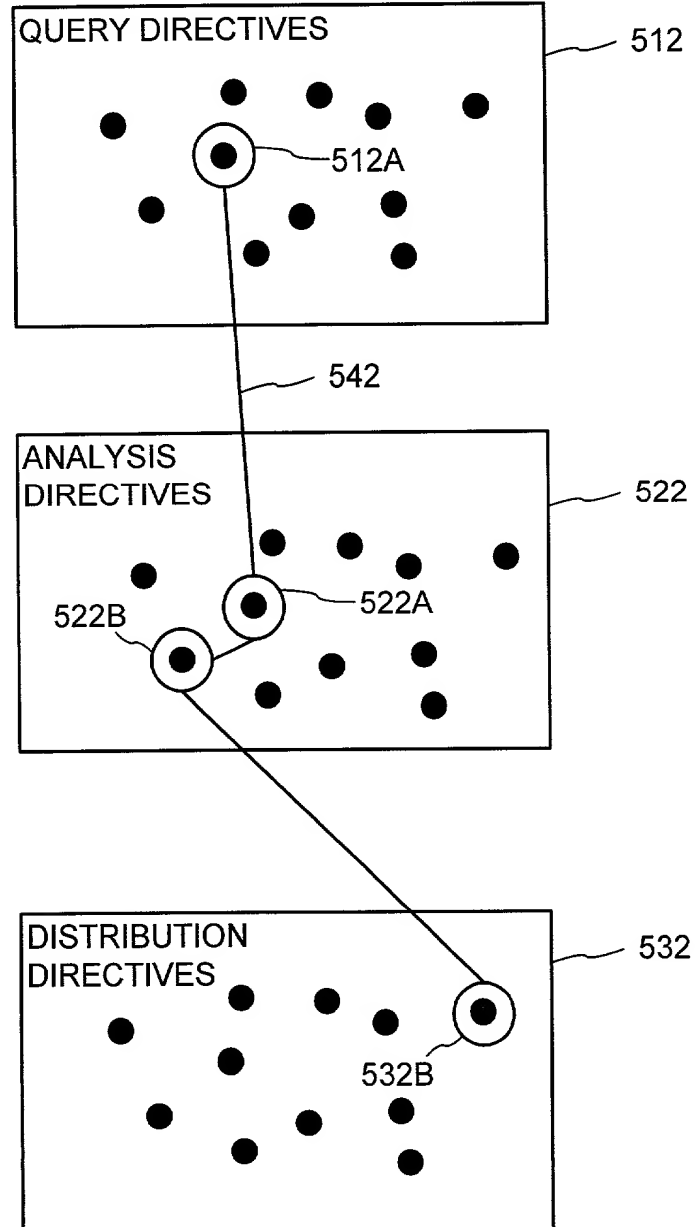


FIG. 6

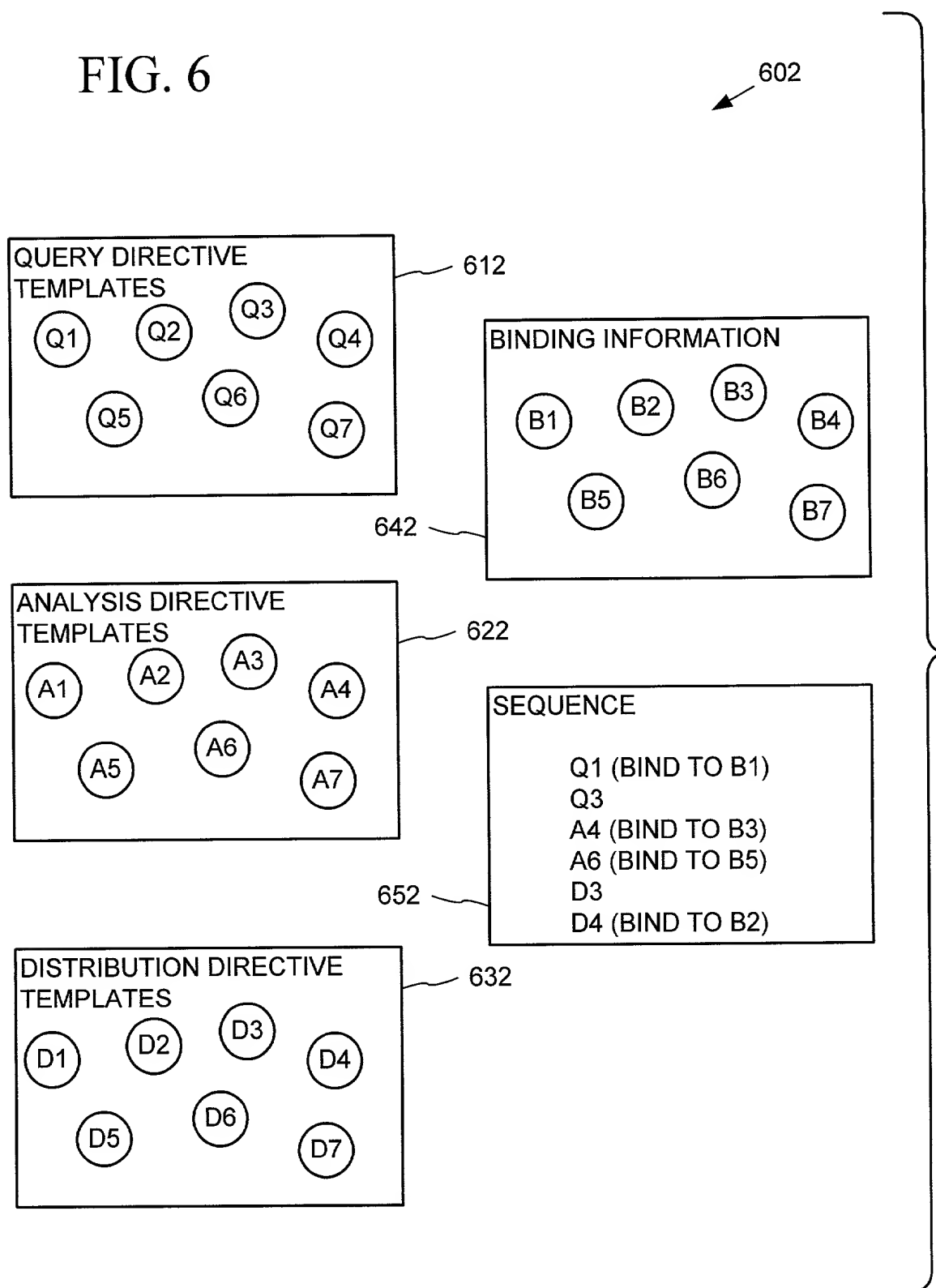


FIG. 7

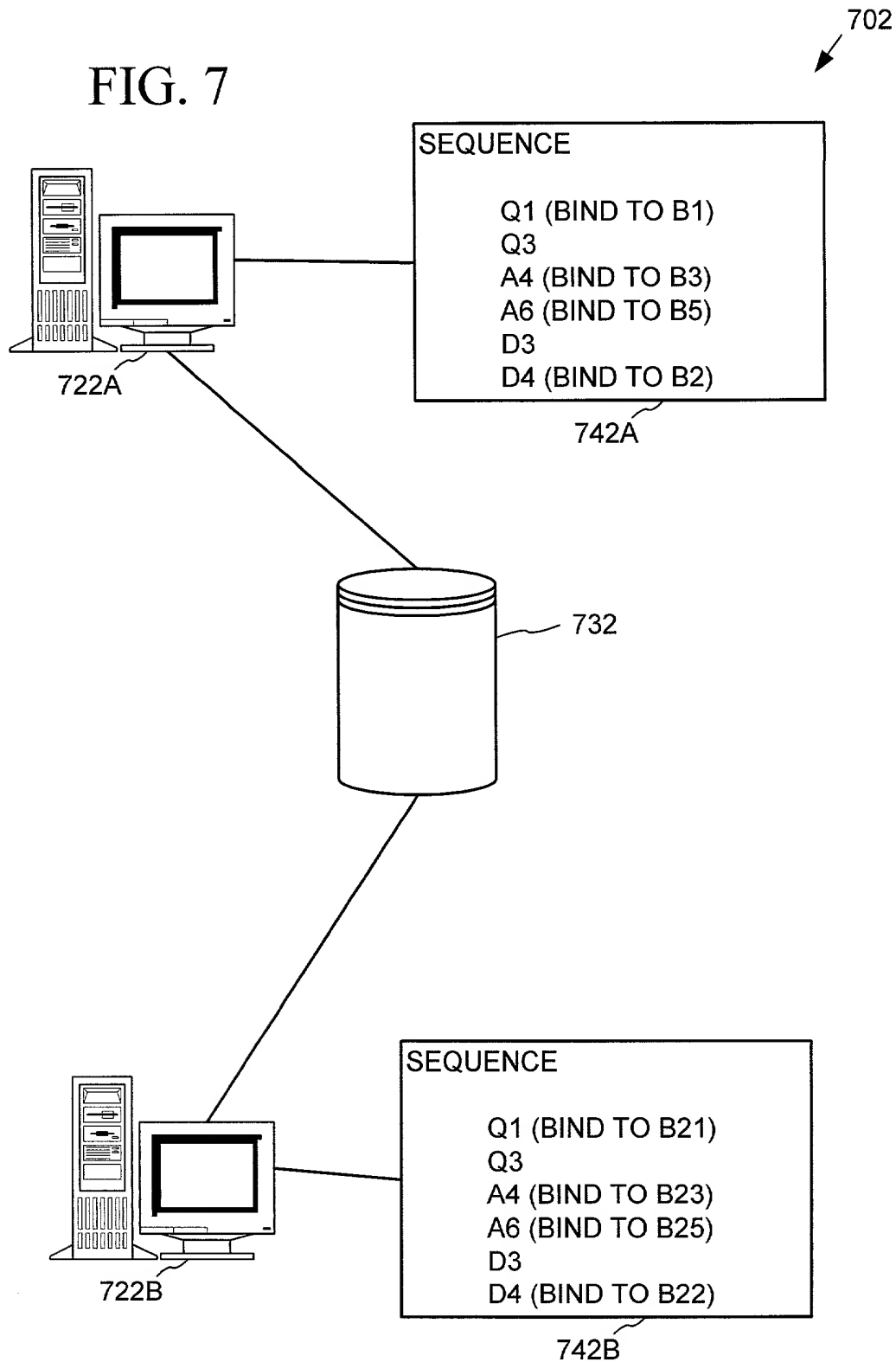


FIG. 8

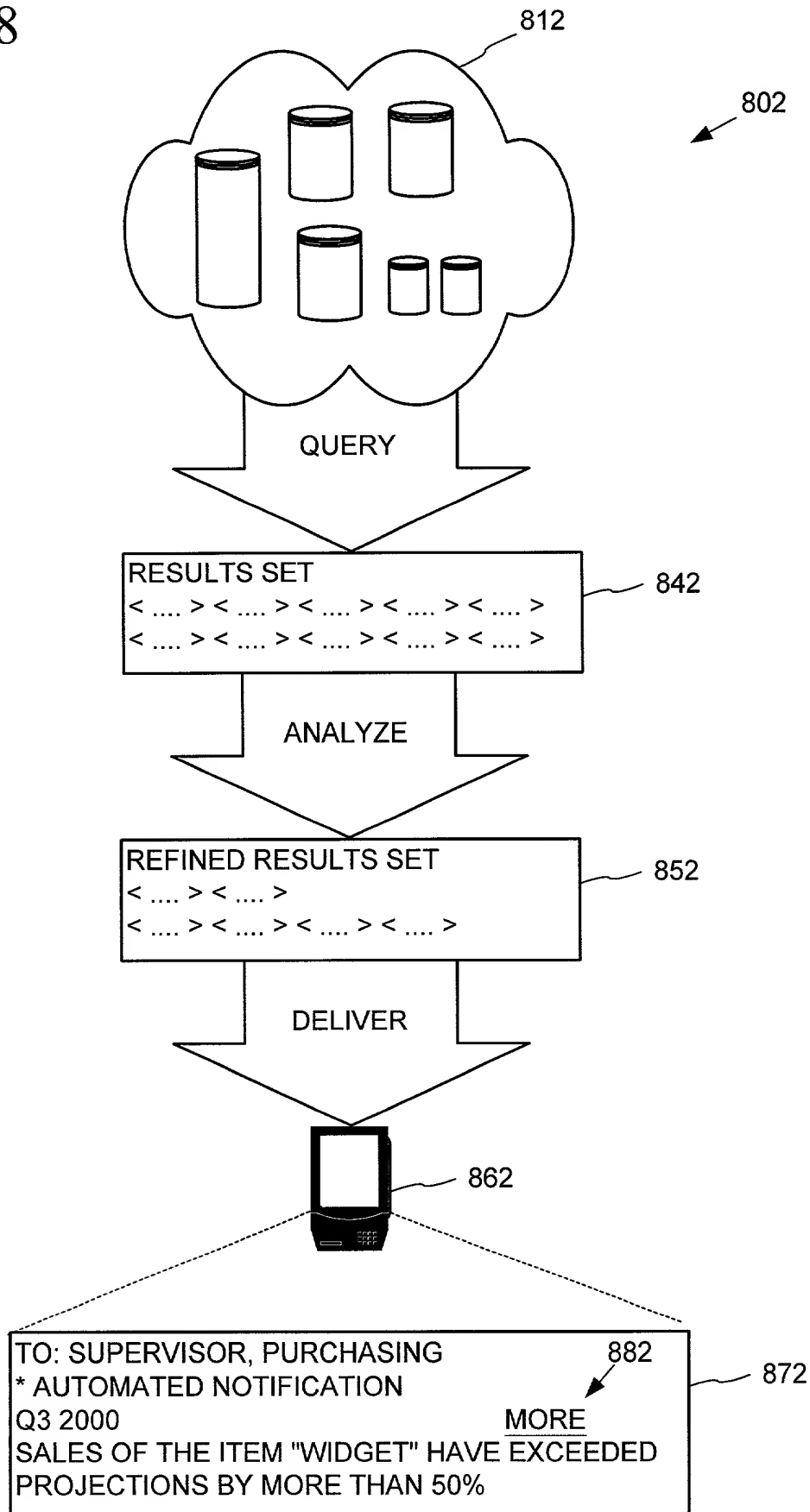


FIG. 9

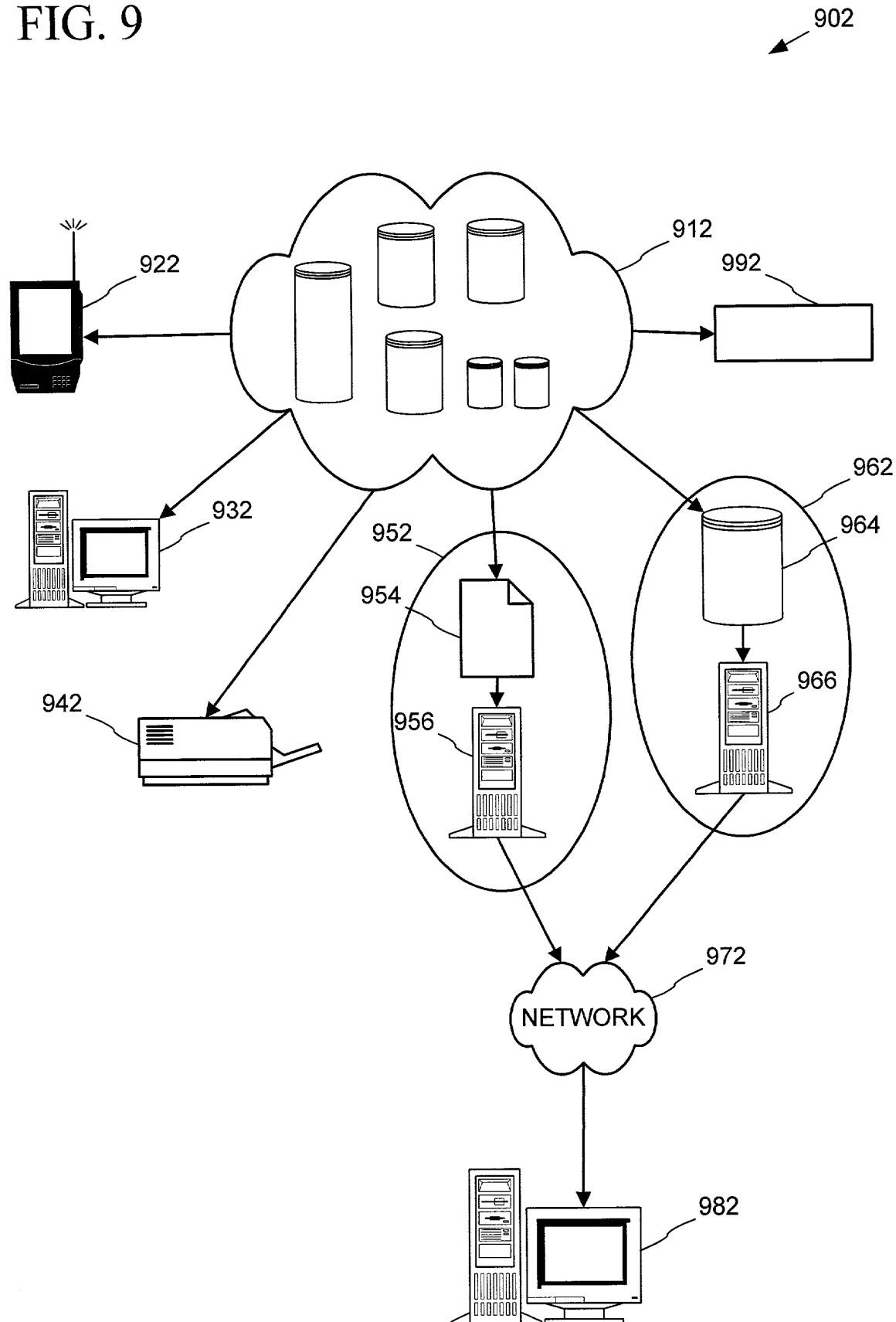


FIG. 10

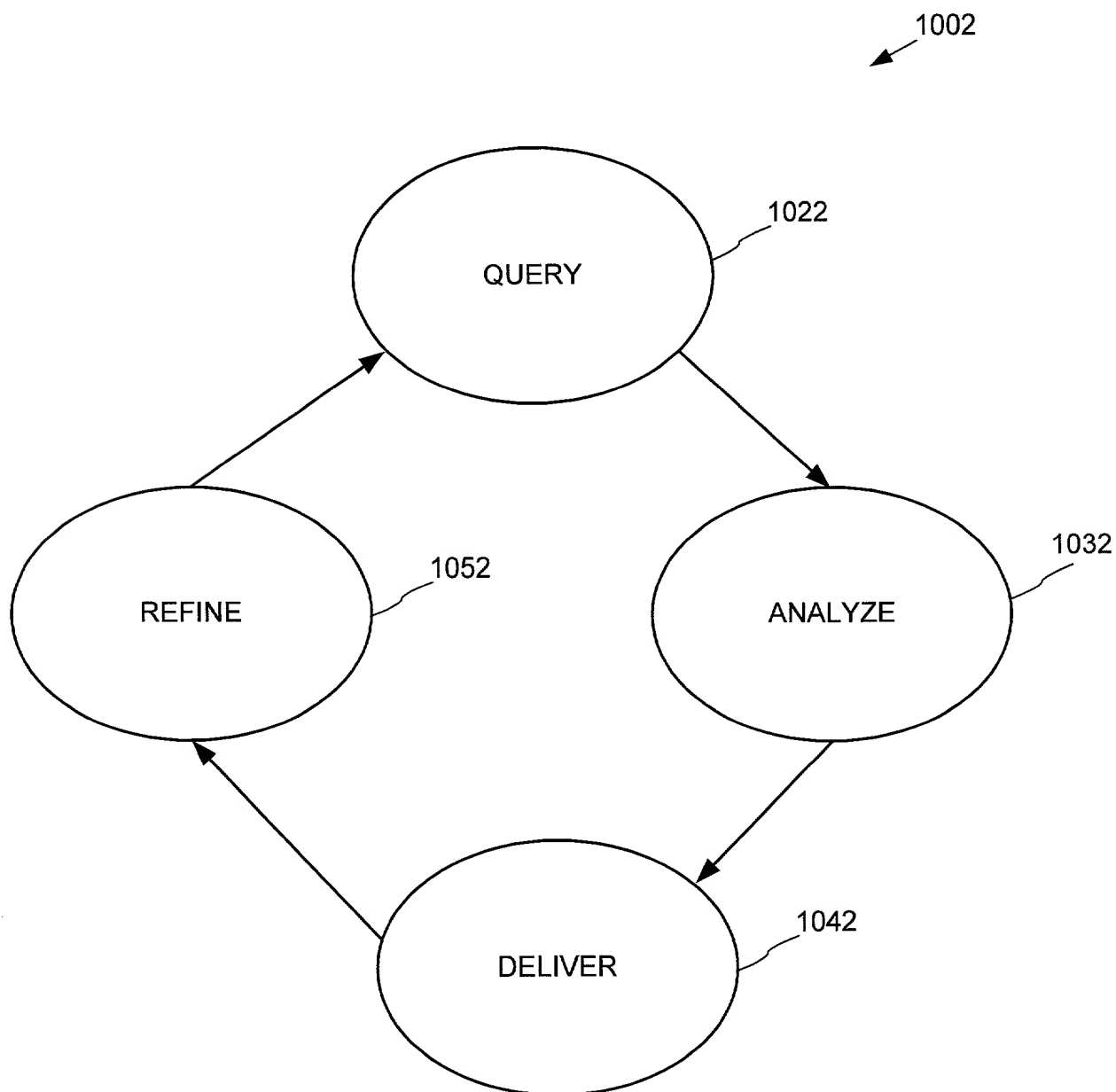


FIG. 11

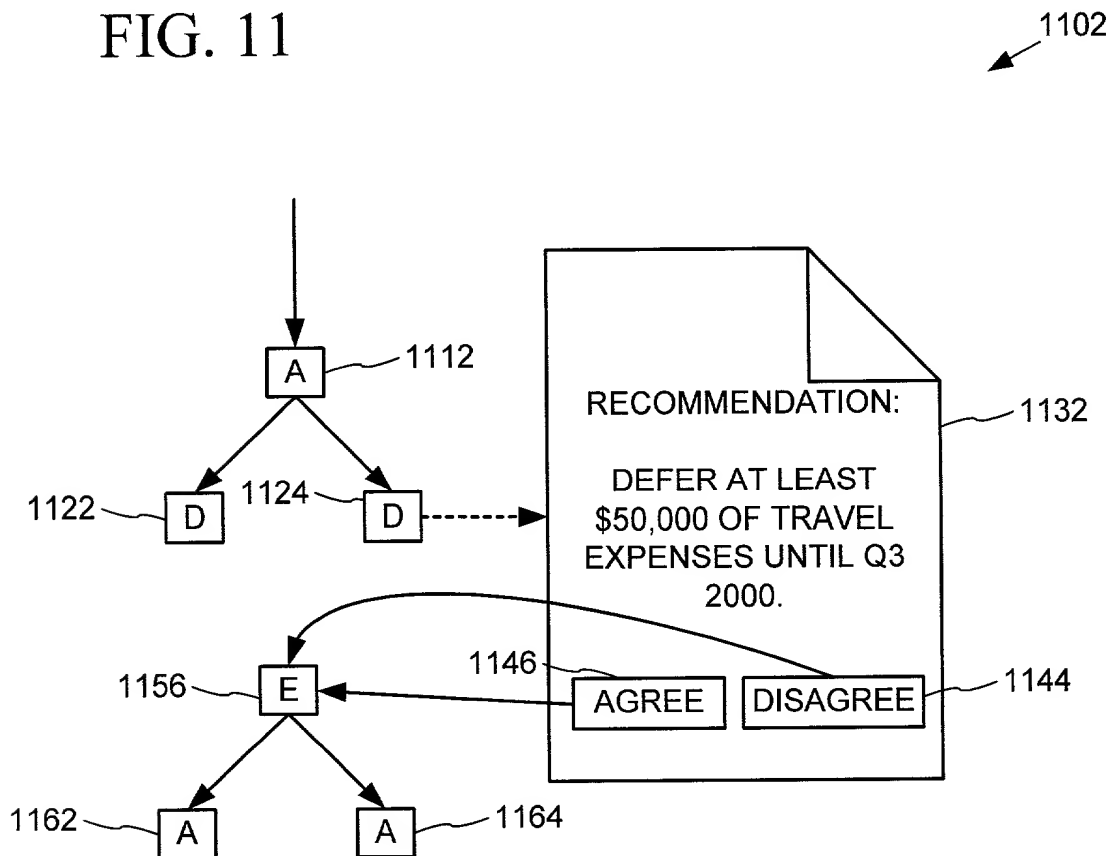


FIG. 12A

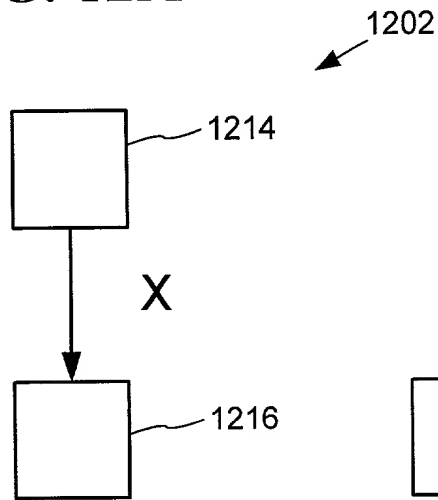


FIG. 12B

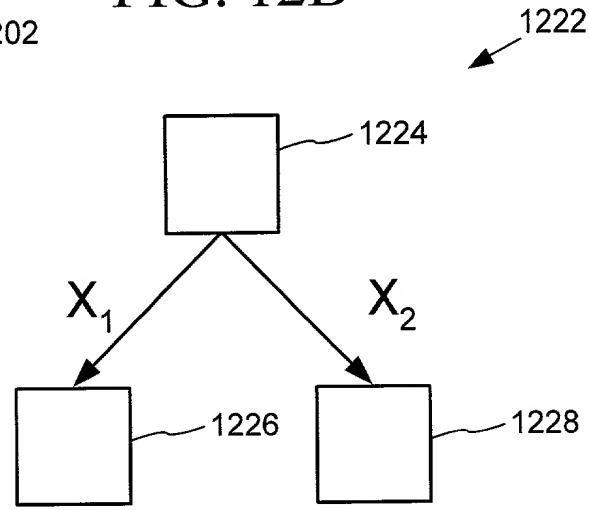


FIG. 12C

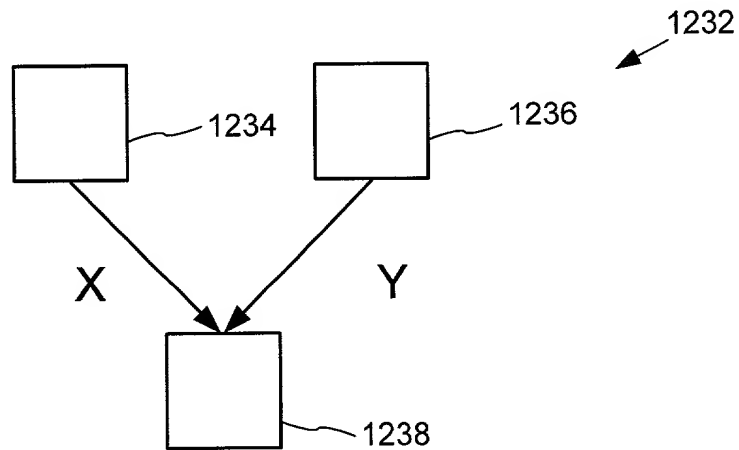


FIG. 12D

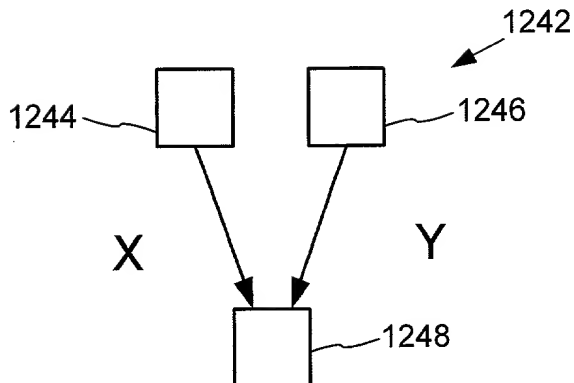


FIG. 12E

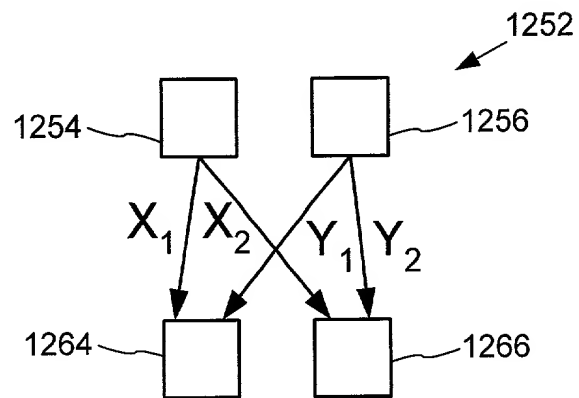


FIG. 13

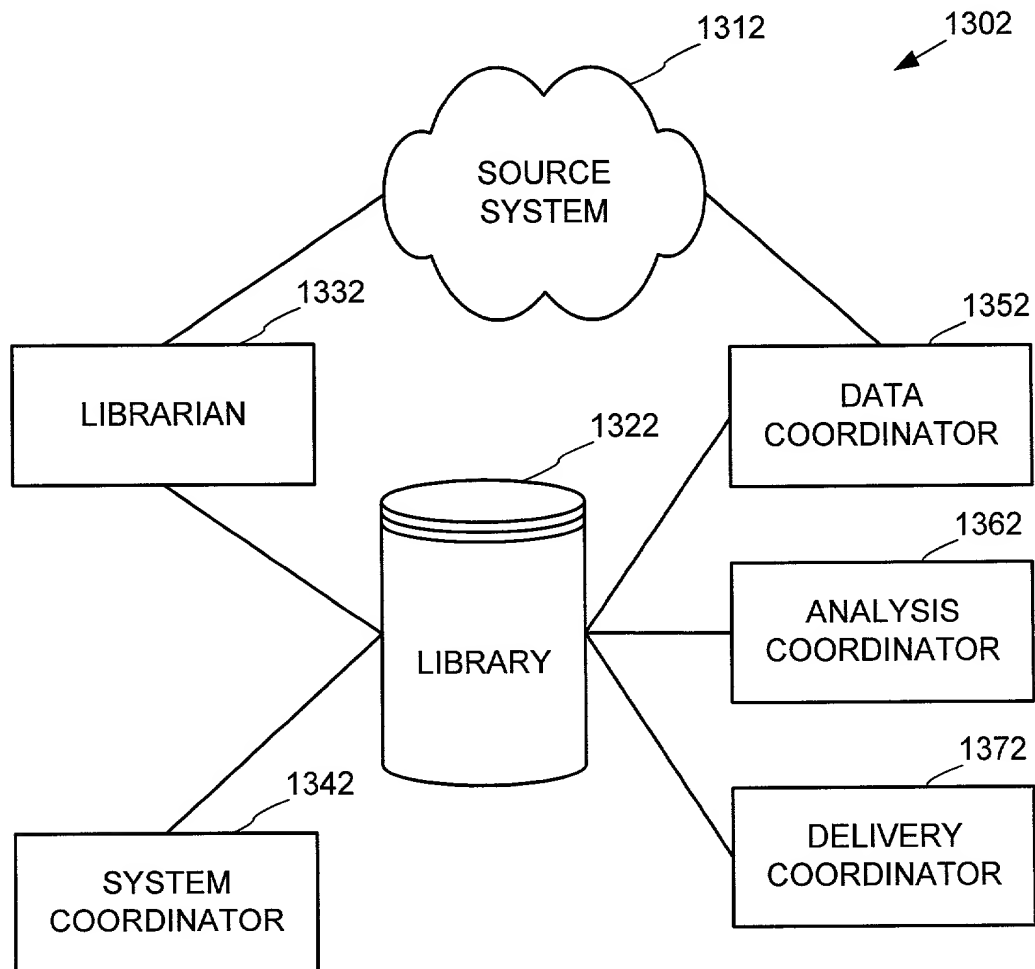


FIG. 14A

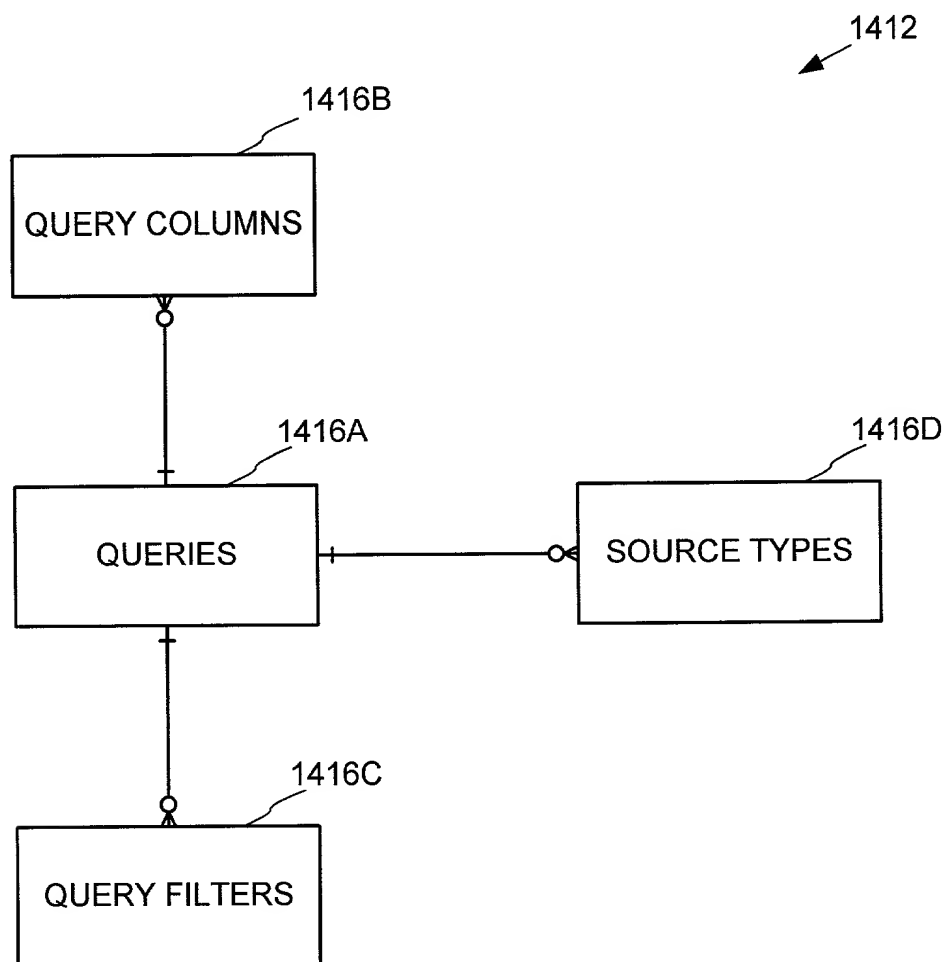


FIG. 14B

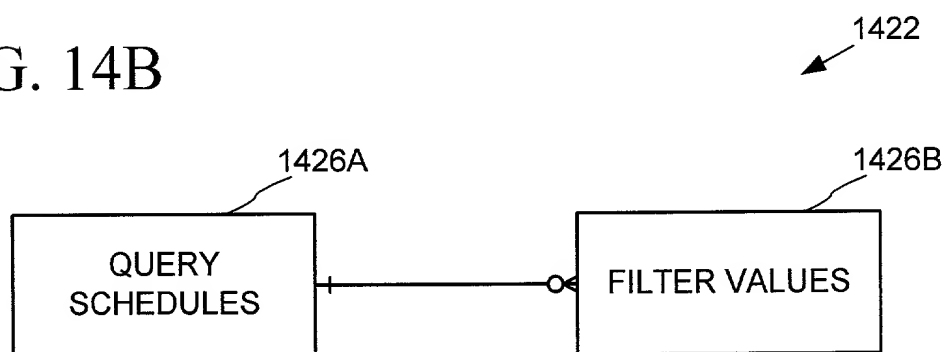


FIG. 14C

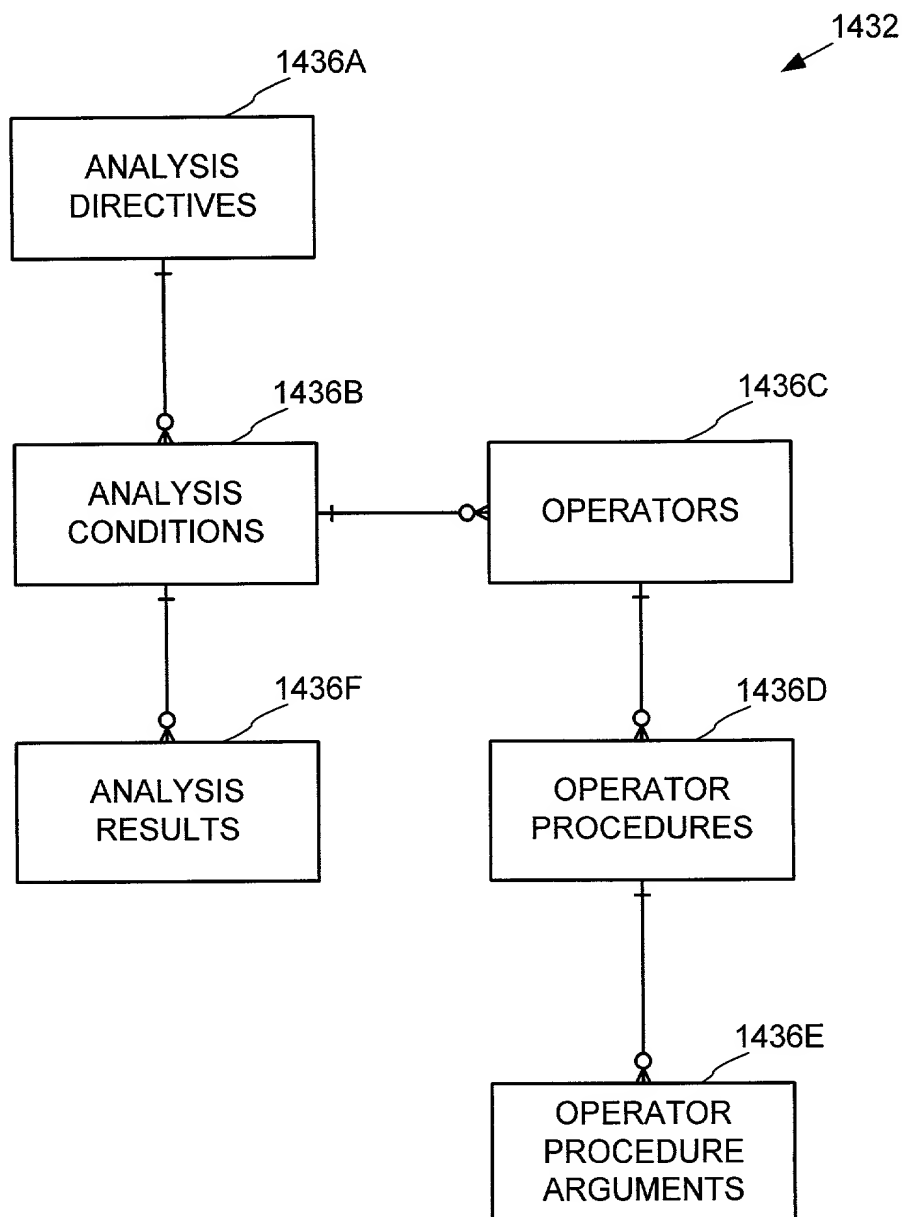


FIG. 14D

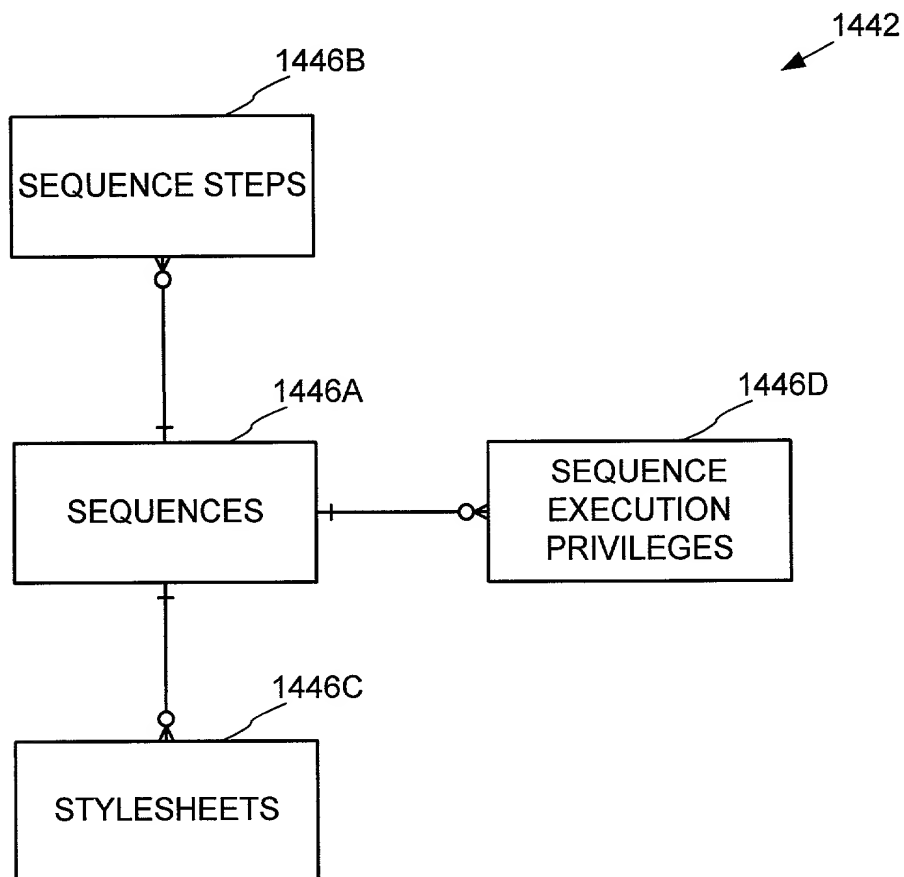


FIG. 14E

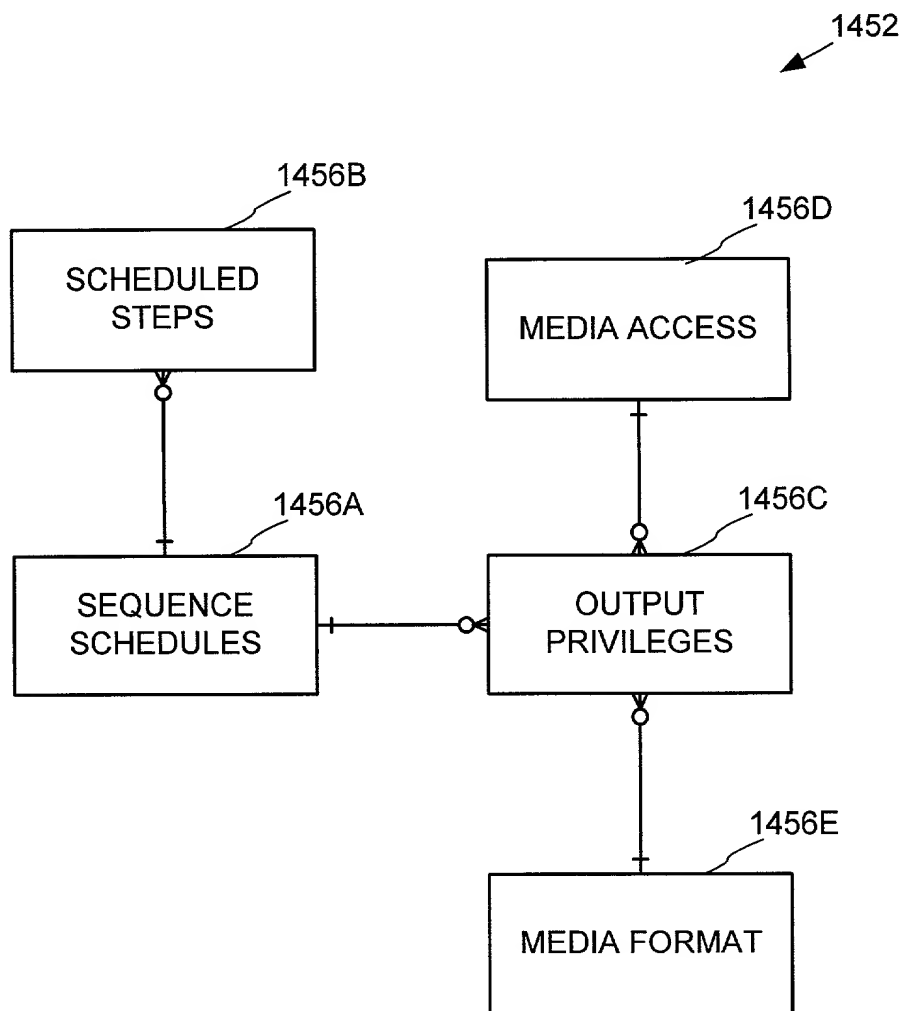


FIG. 14F

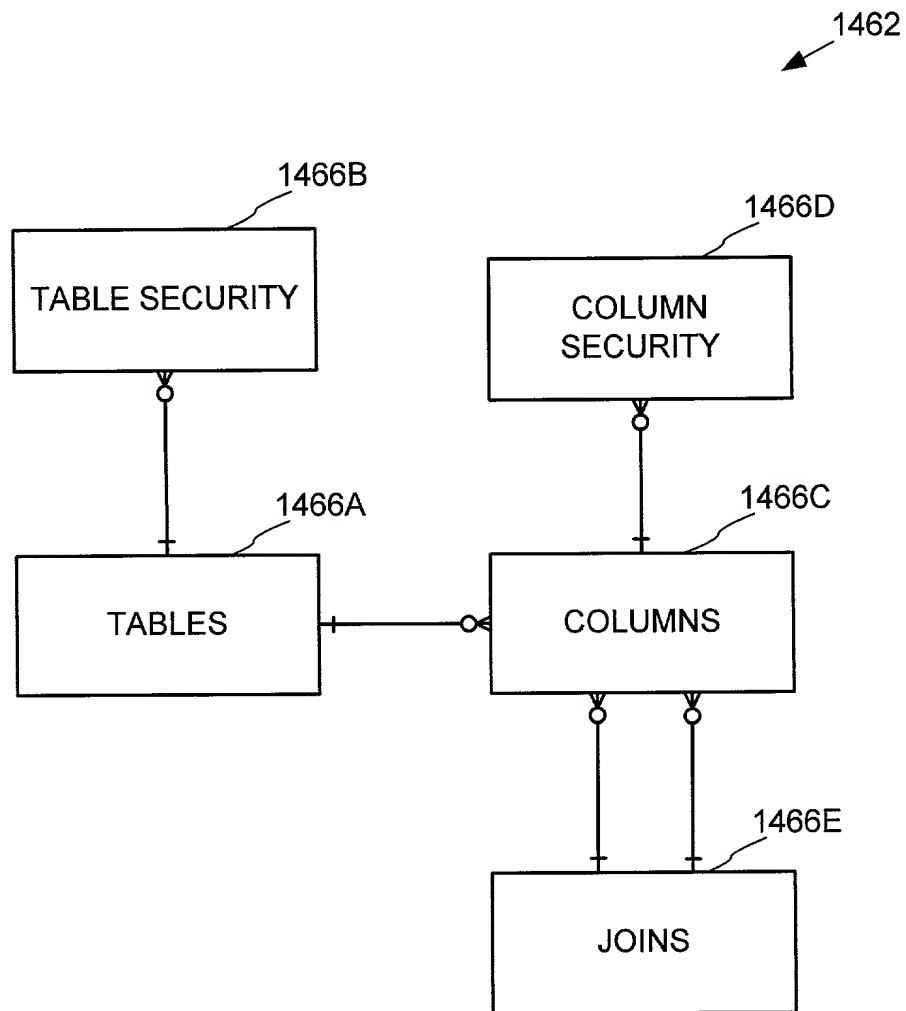


FIG. 14G

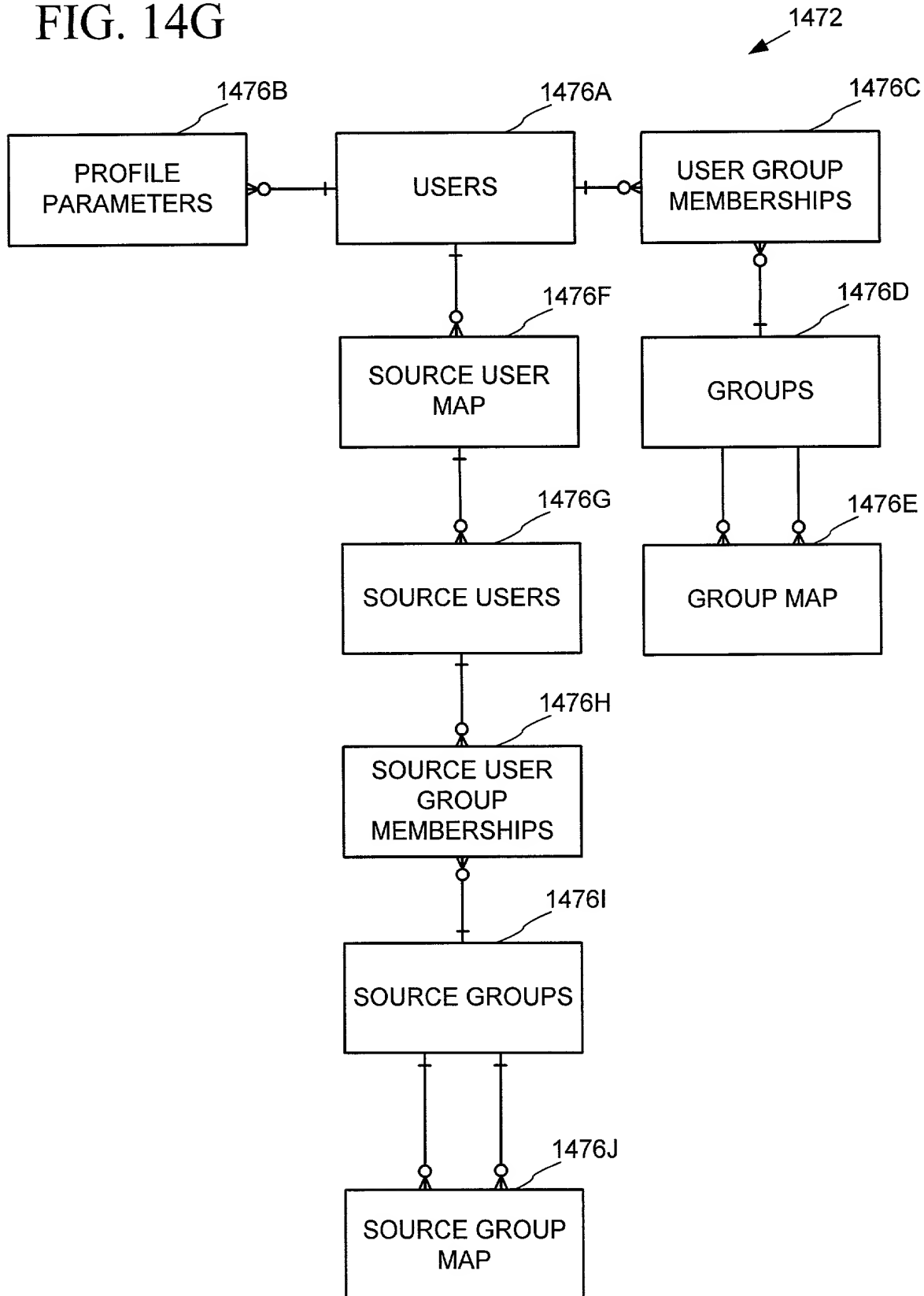


FIG. 14H

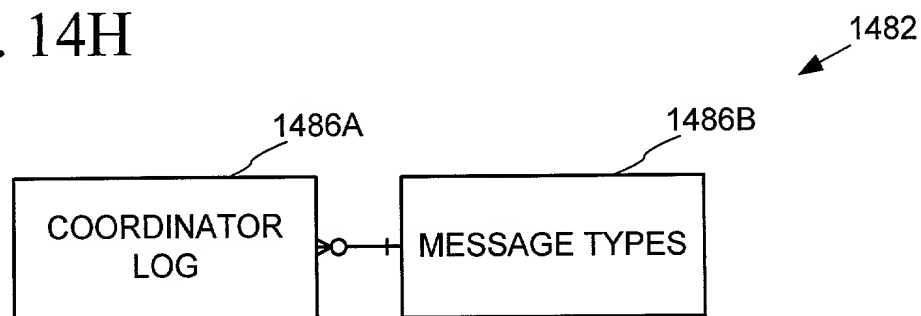


FIG. 15A

1502

QUERY DIRECTIVES						
NAME	DESC	SOURCE	USER	STATUS	OPTION	
NEW	NEW	SYSTEM A	NB	AVAILABLE	ADD	
CC1	COST CENTER	SYSTEM A	EH	AVAILABLE	MOD	
AR-PTD	PERIOD TO DATE	SYSTEM B	LS	AVAILABLE	MOD	
REV	PTD REVENUE	SYSTEM B	LS	AVAILABLE	MOD	
FIN	FINANCIALS	SYSTEM B	LS	AVAILABLE	MOD	
SALES	SALES BY DEPT	SYSTEM B	LS	AVAILABLE	MOD	

FIG. 15B

1504

QUERY TABLE & COLUMNS				
QUERY:NEW QUERY				
TABLE	COLUMN	GB?	ST	XML TAG ROR? SORT
<div>SELECT COLUMN</div>				
ACCOUNTING_DATE_D	▼			
AR_RCT_REV_RESN_D	▲			
AR_RECPT_STATUS_D				
AR_REVENUE_F				
AR_SCH_PMT_DTL_F				
AR_SHIP_VIA_D				
AR_SOLD_TO_CUST_D				
ASSET_BOOK_D				
ASSET_EMPLOYEE_D				
ASSET_INVENTORY_F				
ASSET_TYPE_D				
AUTHORIZER_D	▼			

FIG. 15C

1506

QUERY:NEW QUERY		QUERY TABLE & COLUMNS				
TABLE	COLUMN	GB?	ST	XML TAG	ROR?	SORT
DEPARTMENT_D	DEPARTMENT	<input type="checkbox"/> Y	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> N	<input type="checkbox"/>
<div>DEPARTMENT DEPARTMENT_DESC DEPARTMENT_KEY</div>		<div>ADD</div>				

FIG. 15D

1508

QUERY TABLE & COLUMNS						
QUERY:NEW QUERY						
TABLE	COLUMN	GB?	ST	XML TAG	ROR?	SORT
DEPARTMENT_D	DEPARTMENT_DESC	Y		DEPARTMENT	N	1

ADD COLUMN

DONE

FIG. 15E

QUERY TABLE & COLUMNS							
QUERY:NEW QUERY	TABLE	COLUMN	GB?	ST	XML TAG	ROR?	SORT
	DEPARTMENT_D	DEPARTMENT_DESC	Y		DEPARTMENT	N	1
	INC_STMT_LINES_D	LINE_NAME	Y		LINE_NAME	N	
	INCOME_STMT_A	PTD_ACTUAL	N	SUM	PTD_ACTUAL	N	
	INCOME_STMT_A	PTD_BUDGET	N	SUM	PTD_BUDGET	N	
	INCOME_STMT_A	PTD_VARIANCE	N	SUM	PTD_VARIANCE	N	
<div>ADD COLUMN</div> <div>DONE</div>							

1510

FIG. 15F

QUERY:NEW QUERY

QUERY FILTERS

TABLE	COLUMN	FILTER OPERATOR	ROR?	REF TABLE	REF COLUMN
BUDGET_D	BUDGET	<div><div>IN</div><div>≡</div><div><</div><div>></div><div>≡</div><div><</div><div>></div><div>≡</div><div><</div><div>></div><div>≡</div></div>	<div>NO</div>		
<div>ADD</div>					

1512

FIG. 15F

FIG. 15G

1514

QUERY:NEW QUERY					QUERY FILTERS		
TABLE	COLUMN	FILTER OPERATOR	ROR?	REF TABLE	REF COLUMN		
BUDGET_D	BUDGET	IN	N				
PERIOD_D	PERIOD	=	N				
DEPARTMENT_D	DEPARTMENT	=	N	DEPARTMENT_D	DEPARTMENT_KEY		
<div>ADD FILTER</div> <div>FINISH</div>							

FIG. 15H

1516

ANALYSIS SUBSEQUENCE			
YOU ARE TYING THIS ANALYSIS SUBSEQUENCE TO THE QUERY DIRECTIVE: NEW QUERY			
ANALYSIS SUBS NAME	USER NAME	RESULTS TYPE	LAST RUN DATE OPTIONS
<input type="text" value="INCOME STMT ANALYSIS"/>	<input type="text" value="NB"/>	<input type="text" value="SHOW"/>	<input type="button" value="ADD"/>

FIG. 15I

1518

ANALYSIS SUBSEQUENCE									
NAME : INCOME STATMT ANALYSIS									
COND'N TYPE	CON'DN SEQ.	XML TAG NAME	XML TDT	XML TDF	OPERATOR	TV	OPT.		
AND	<input type="text"/>	DEPARTMENT ▼	<input type="text"/>	<input type="text"/>	NOOP ▼	<input type="text"/>	<input type="button" value="ADD"/>		
<div>ADDITIONS COMPLETED</div>									

FIG. 15J

1520

ANALYSIS SUBSEQUENCE									
NAME : INCOME STATMT ANALYSIS									
COND'N	CON'DN	XML TAG NAME	XML	XML	OPERATOR	TV	OPT.		
TYPE	SEQ.		TDT	TDF					
AND		DEPARTMENT			NOOP			ADD	
		DEPARTMENT							
		LINE_NAME							
		PTD_ACTUAL							
		PTD_BUDGET							
		PTD_VARIANCE							
		ONS COMPLETED							

FIG. 15K

1522

ANALYSIS SUBSEQUENCE									
NAME : INCOME STATMT ANALYSIS									
COND'N	CON'DN	XML TAG NAME	XML	XML	XML	XML	XML	XML	XML
TYPE	SEQ.		TDT	TDF					OPT.
AND	1	PTD_ACTUAL							
<div>ADD</div>									
<div>NOOP</div>									
<div>TOP PCT</div>									
<div>BOTTOM</div>									
<div>BOTTOM PCT</div>									
<div>> AVG</div>									
<div>< AVG</div>									
<div>< AVG PCT</div>									
<div>> AVG PCT</div>									
<div>AVG WITHIN</div>									
<div>AVG OUT</div>									
<div>AVG WITHING PCT</div>									
<div>AVG OUT PCT</div>									

ADDITIONS COMPLETED

FIG. 15L

1524

ANALYSIS SUBSEQUENCE									
NAME : INCOME STATMT ANALYSIS									
COND'N TYPE	CON'DN SEQ	XML TAG NAME	XML TDT	XML TDF	OPERATOR	TV	OPT		
AND		DEPARTMENT	▼		NOOP	▼		ADD	
AND	1	PTD_ACTUAL	▼		<>	▼	0	MOD	DEL
AND	2	PTD_VARIANCE	▼		>	▼	300000	MOD	DEL
AND	3	PTD_VARIANCE	▼		TOP PCT	▼	10	MOD	DEL
ADDITIONS COMPLETED									

FIG. 15M

SEQUENCES				
ADD, EDIT OR DELETE SEQUENCES				
ID	NAME	DESCRIPTION	STATUS	USER OPT
	INCOME STAT'T ANALYSIS	INCOME STAT'T ANALYSIS	AVAIL ▼	NB ADD
24	FINANCIAL STATEMENT	FINANCIAL STATEMENT	AVAIL ▼	LS MOD
25	FSV	FSV	AVAIL ▼	NB MOD
26	COST CENTER SCORING 1	COST CENTER SCORING	DISAB ▼	LS MOD
27	COST CENTER SCORING 2	CSS PTD-VARIANCE	AVAIL ▼	LS MOD

1526

FIG. 15N

ADD OR EDIT SEQUENCE STEP INFORMATION

SEQUENCE NAME: INCOME STATEMENT ANALYSIS

ID	STEP	DIRECTIVE TYPE	DIRECTIVE ID	LUB	LUD
28	1	QUERY DIRECTIVE	<div>QUERY FOR STEP ▼</div> <div>AR - PTD REVENUE BY DEPARTMENT VARIANCE AND VARIANCE PERCENT NEW QUERY NEIL'S QUERY NEIL'S OTHER QUERY LARRY'S QUERY YET ANOTHER LARRY QUERY</div>		

ADD

DEFINE

1530

FIG. 150

1532

ADD OR EDIT SEQUENCE STEP INFORMATION				
SEQUENCE NAME: INCOME STATEMENT ANALYSIS				
ID	STEP	DIRECTIVE TYPE	DIRECTIVE ID	LUB LUD
28	1	QUERY DIRECTIVE	<div>NEW QUERY ▼</div>	12/15/00
<div>MOD</div> <div>DEFINE</div>				
28	2	<div>ANALYSIS DIRECTIVE ▼</div>	<div>DIRECTIVE</div>	
<div>QUERY DIRECTIVE</div> <div>ANALYSIS DIRECTIVE</div> <div>EVENT DIRECTIVE</div> <div>DISTRIBUTION DIRECTIVE</div>				

FIG. 15P

ADD OR EDIT SEQUENCE STEP INFORMATION				
SEQUENCE NAME: INCOME STATEMENT ANALYSIS				
ID	ST	DIRECTIVE TYPE	DIRECTIVE ID	LUB LUD
28	1	QUERY DIR	NEW QUERY ▼	12/15/00
				MOD DEFINE
28	2	ANALYSIS DIR	INCOME STMT ANALYSIS ▼	NB 12/15/00
				MOD DEFINE
28	3	DISTRIBUTION DIRECTIVE ▼		
		DIRECTIVE		

1534

FIG. 15Q

DISTRIBUTION FORMAT	
SEQUENCE NAME: INCOME STATEMENT ANALYSIS	
FORMAT	
HTML	CREATE
EXCEL	
HTML	
WAP	

1536

FIG. 15R

<p><u>HOME</u></p> <p><u>INSTRUCTIONS</u></p> <p><u>SEQUENCES AVAILABLE</u></p> <p><u>ADMIN</u></p> <p><u>SYS SETTINGS</u></p> <p><u>USERS</u></p> <p><u>LOGS</u></p> <p><u>APPL SETTINGS</u></p> <p><u>MEDIA SETT'S</u></p>	SCHEDULE SEQUENCES				
	SEQUENCE NAME	USER	SCHEDULE DESC	FREQ	PRIORITY
	INCOME STAT'T ANALYSIS ▼	LS	ISA FOR DEC '00	IMMEDIATE ▼	ADD
	SELECT SEQUENCE TO VIEW				
	COST CENTER SCORING - PTD VARIANCE ▼		VIEW		

1538

FIG. 15S

SCHEDULE SEQUENCES				
SEQUENCE NAME	USER	SCHEDULE DESC	FREQ	PRIORITY
INCOME STAT'T ANALYSIS ▼	LS	ISA FOR DEC '00	IMMEDIATE ▼	ADD
SELECT SEQUENCE TO VIEW				
IMMEDIATE				
ONCE				
EXTRACT				
DAILY				
WEEKLY				
MONTHLY				
COST CENTER SCORING - PTD VARIANCE ▼				

1540

FIG. 15T

ADD SEQUENCE TO SCHEDULE			
SELECT THE DAYS YOU WISH THE SEQUENCE TO RUN			
<input type="checkbox"/> SUNDAY <input type="checkbox"/> MONDAY <input type="checkbox"/> TUESDAY <input type="checkbox"/> WED <input type="checkbox"/> THURS <input type="checkbox"/> FRIDAY <input type="checkbox"/> SATURDAY			
START AT			
<div>8</div>	<div>▼</div>	<div>:</div>	<div>30</div>
		<div>▼</div>	<div>PM</div>
NEXT START DATE			
<div>2000</div>	<div>▼</div>	<div>DEC</div>	<div>▼</div>
<div>15</div>	<div>▼</div>		
<div>SUBMIT</div>			

1542

FIG. 15U

SELECT SOURCE INFORMATION		SCHEDULE ENTRY	
SEQUENCE: INCOME STATEMENT ANALYSIS			
STEP: 1			
QUERY: NEW QUERY			
SOURCE NAME	DV	▼	
	DV	PART	
<div>CONTINUE</div>			

1544

FIG. 15U

FIG. 15V

SELECT SOURCE INFORMATION		SCHEDULE ENTRY	
SEQUENCE: INCOME STATEMENT ANALYSIS			
STEP: 1			
QUERY: NEW QUERY			
SOURCE NAME		PART	
SOURCE SET		OAS	▼
CONTINUE			

1546

FIG. 15W

1548

FILTER VALUES FOR QUERY			
SEQUENCE: INCOME STATEMENT ANALYSIS			
SCHEDULE: INCOME STATEMENT ANALYSIS FOR DECEMBER 2000			
SEQUENCE STEP: 1			
NEW QUERY			
TABLE NAME	COL NAME	OP	FILTER VALUE
BUDGET_D	BUDGET	IN	<div>ACTUAL</div> <div>MOD</div>
			<div>CORPORATE 1997</div> <div>MOD</div> <div>DEL</div>
			<div></div> <div>ADD</div>
PERIOD_D	PERIOD	=	<div>DEC-2000</div> <div>MOD</div>
<p>IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD, MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED</p> <div>FINISHED</div>			

FIG. 15X

1550

SEQUENCE OUTPUT PRIVILEGES

GROUPS

SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000

USER	ACCESS	FORMAT	ST	CS	RESULT TAG	RESULT VALUE	OPT
NEILB ▼	EMAIL_DATA ▼	HTML ▼	▼				ADD
NEILB LARRYS ERICH MARC SALES MARKET HQ							

IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD,
MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED

FINISHED

FIG. 15Y

1552

GROUPS

SEQUENCE OUTPUT PRIVILEGES

SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000

USER	ACCESS	FORMAT	ST	CS	RESULT TAG	RESULT VALUE	OPT
NEILB	EMAIL_DATA	HTML					ADD
<div>EMAIL_DATA</div> <div>EMAIL_URL</div> <div>WEB</div> <div>DESK_ALERT</div>							

IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD, MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED

FINISHED

FIG. 15Z

SEQUENCE OUTPUT PRIVILEGES

GROUPS

SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000

USER	ACCESS	FORMAT	ST	CSS RESULT TAG	RESULT VALUE	OPT
NEILB	EMAIL_DATA	HTML		3		ADD
<div>1 2</div> <div>HTML WAP XML EXCEL PALM VII PALM MAIL</div>						

IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD,
MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED

FINISHED

1554

FIG. 15AA

1556

SEQUENCE OUTPUT PRIVILEGES		
SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000		
CONDITION SUBSEQUENCE	RESULT TAG	RESULT VALUES
SUBSEQUENCE 2 ▼	<div>SELECT DESIRED TAG ▼</div> <div>SELECT DESIRED TAG NO RESULT TAG NEEDED DEPARTMENT LINE_NAME PTD_ACTUAL PTD_BUDGET PTD_VARIANCE</div>	<div></div>
<div>FINISHED</div>		

FIG. 15CC

SEQUENCE OUTPUT PRIVILEGES		
SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000		
CONDITION SUBSEQUENCE	RESULT TAG	RESULT VALUES
SUBSEQUENCE 2 ▼	DEPARTMENT ▼	<div><?XML VERSION = "1.0"?> <SPLIT VALUES> <VAL>COMMERCIAL SALES</VAL> <VAL? COMMUNICATIONS RESOURCES</VAL> <VAL>EAST REGION SALES</VAL> <VAL>FINANCES</VAL> <VAL>GOVERNMENT SALES</VAL> <VAL>NON-PRODUCT SALES</VAL> <VAL>PRODUCT SALES</VAL> </SPLIT VALUES></div>
FINISHED		

1560

FIG. 15DD

1562

GROUPS

SEQUENCE OUTPUT PRIVILEGES

SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000

USER	ACCESS	FORMAT	ST	CSS RESULT TAG	RESULT VALUE	OPT
NEILB	EMAIL_DATA	HTML	3			ADD
NEILB	EMAIL_DATA	HTML	2	DEPARTME	<?XML VERSION =	MOD
						DEL

IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD, MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED

FINISHED

FIG. 15EE

1564

SCHEDULE SEQUENCES				
SEQUENCE NAME	USER	SCHEDULE DESC	FREQ	PRIORITY
TEST SEQUENCE FOR PRIVS	LS		IMMEDIATE	ADD
SELECT SEQUENCE TO VIEW				
TEST SEQUENCE FOR PRIVS AND STEPS				
TEST SEQUENCE FOR PRIVS AND STEPS				
COST CENTER SCORING - PTD				
COST CENTER SCORING - PTD VARIANCE				
TEST VOAGE				
AR - PTD REVUENUE BY DEPARTMENT				
SOCCER SCORES				
BUDGET VARIANCE SCORING				
INCOME STATEMENT ANALYSIS				
VIEW				

FIG. 15FF

SCHEDULE SEQUENCES				
SEQUENCE NAME	USER	SCHEDULE DESC	FREQ	PRIORITY
TEST SEQUENCE FOR PRIV	LS		IMMEDIATE	ADD
SELECT SEQUENCE TO VIEW				
TEST SEQUENCE FOR PRIVS AND STEPS		VIEW		
SEQUENCE: INCOME STATEMENT ANALYSIS USER: NB				
ID	DESCRIPTION	STATUS	FREQ	START OPTIONS
1815	INCOME STAT'T ANALYSIS DEC 2001	SCHED	DAILY	23-APR-2001 08:30 PM
				MOD
				DEL
				PRIVILEGES

1566

FIG. 16A

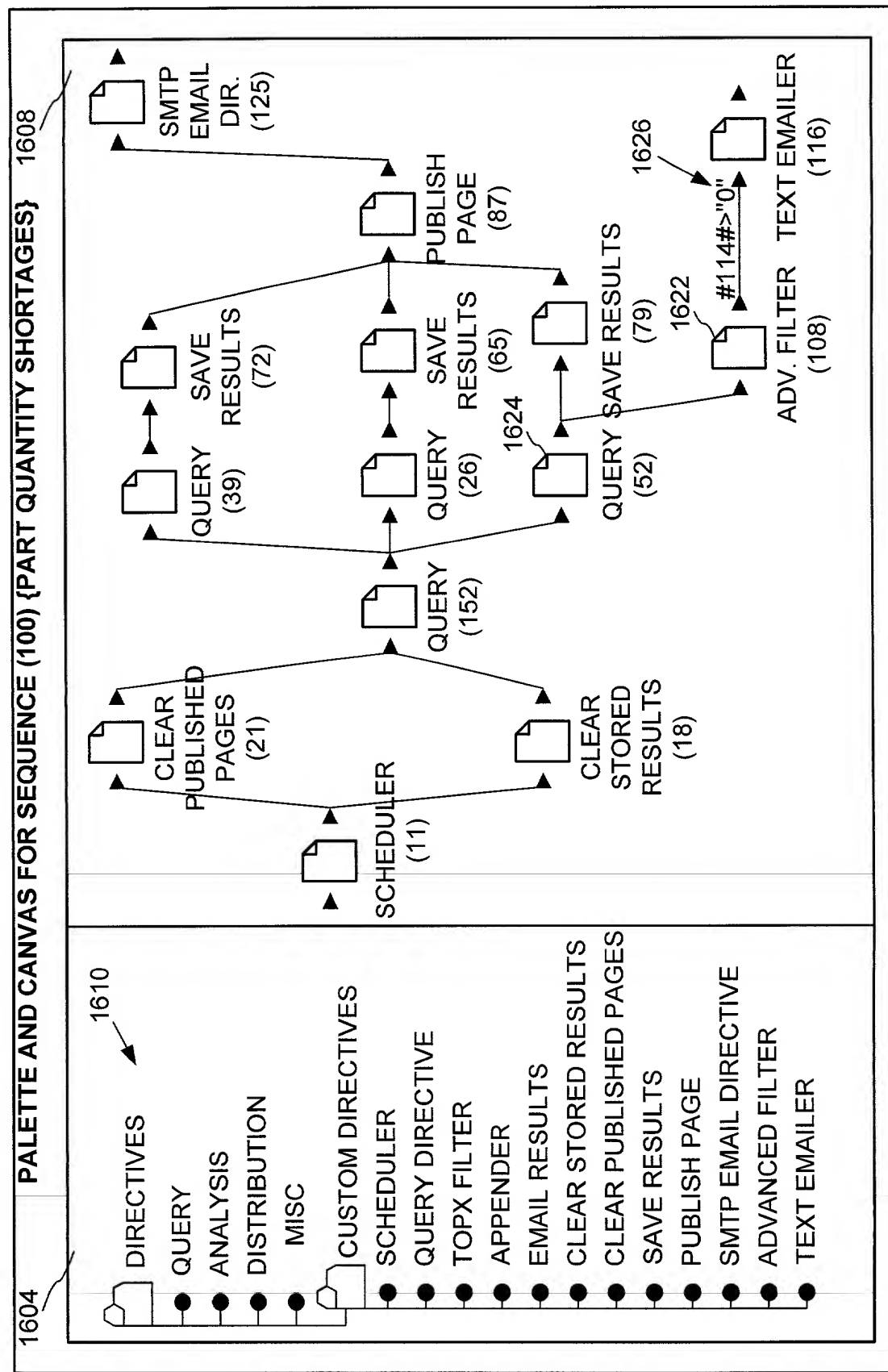


FIG. 16B

SEQUENCE PROPERTIES

X

SEQUENCE NAME:
DESCRIPTION:
NOTES:

PART QUANTITY SHORTAGES

FINDS PART QUANTITY SHORTAGES

SAVE THIS ONE

SEQUENCE AUTHOR:
SEQUENCE STATUS:

AUTHOR1

STATUS1

GLOBAL VARIABLES:

CAPTION:
VALUE:

CONNECT STRING

JDBC:ORACLE.THIN@123.245.23.1:1521:CONNECT30

CAPTION:
VALUE:

DATABASE USER NAME

RRIC1234

CAPTION:
VALUE:

DATABASE PASSWORD

SEQUENCE

CAPTION:
VALUE:

OWNERNAME

QRY_ANALYSIS

CAPTION:
VALUE:

CURRENT PERIOD

(1997-09) SEP-97

OK

CANCEL

ADD VARIABLE

1630

FIG. 16C

X

DIRECTIVE PROPERTIES

ID: 108 DIRECTIVE NAME: (ADFILTER) ADVANCED FILTER

ACTIVITY

INPUT

INPUT

INPUT

PARAM NAME (FILTER_EXP) FILTER EXPRESSION

#REQUIRED_QUANTITY# >200

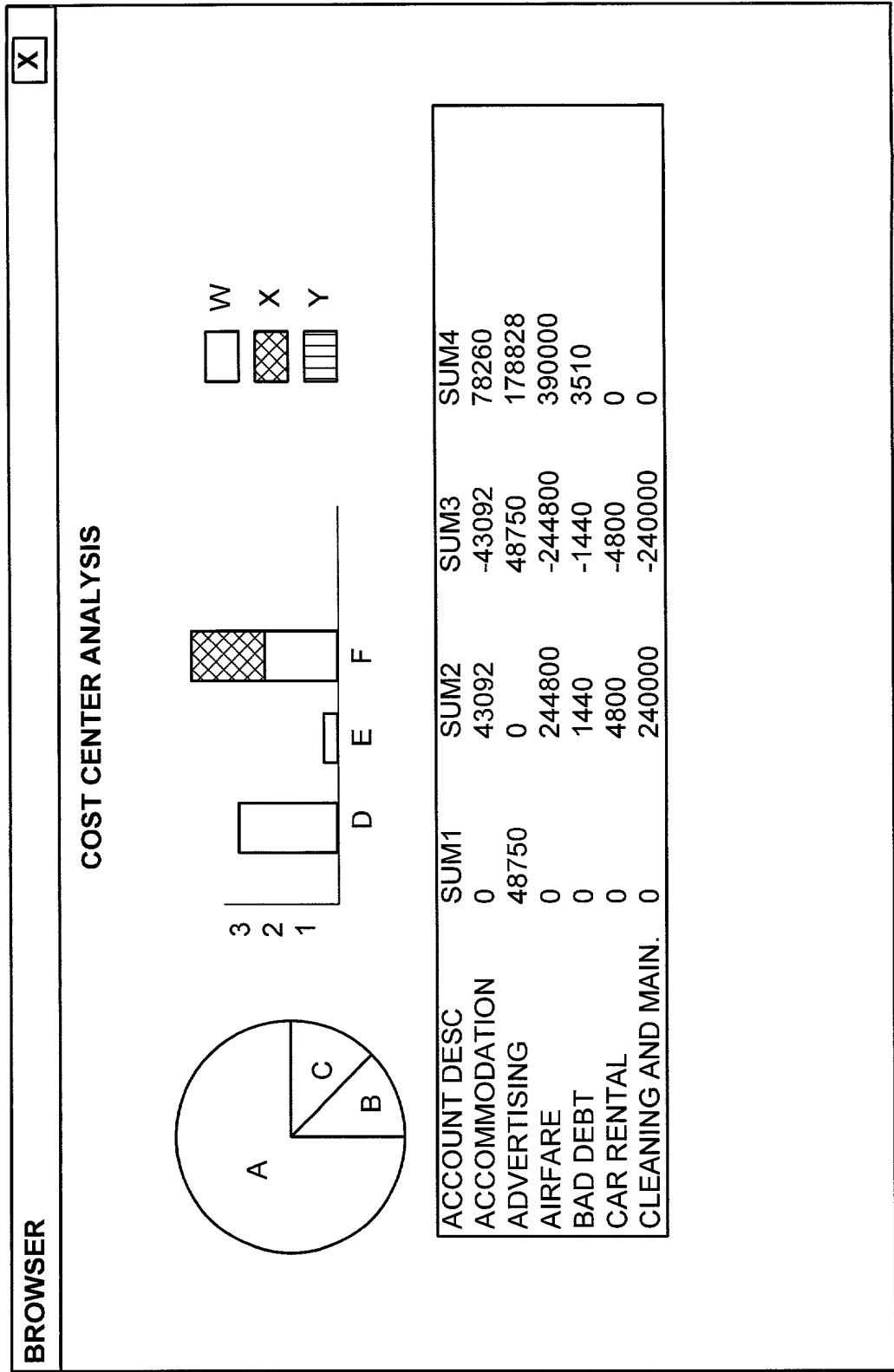
DB3(52) RESULT DATA

OK

CANCEL

1660

FIG. 17



1702

FIG. 18

1801

```
<DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="DB2" DIRECTIVE_NAME="DATA DIRECTIVE"  
THREADING_EFFECT="SPLIT" DIRECTIVE_DESC="SQL DATADIRECTIVE THAT SPLITS  
RESULTS ON GIVEN COLUMN" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"  
DIRECTIVE_CATEGORY="DPA-MISC">  
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4"  
PORT="9070"/>  
  <IN_PARAMETERS>  
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SQL"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="SQL"/>  
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="COLUMN TO SPLIT"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="SPLIT_COLUMN"/>  
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="CONNECTION STRING"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="CONNECTION_STRING"/>  
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE USER NAME"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="USERNAME"/>  
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE PASSWORD"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="PWD"/>  
  </IN_PARAMETERS>  
  <OUT_PARAMETERS>  
    <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT DATA"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET"/>  
    <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT METADATA"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA"/>  
    <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="SPLIT VALUE"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="SPLITVALUE"/>  
  </OUT_PARAMETERS>  
</DF_DIRECTIVE_DEFINITION>
```

FIG. 19A

1901
↙

```
- <DF_DIRECTIVE_DEFINITION_LIST>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="SB1" DIRECTIVE_NAME="SCHEDULER"
DIRECTIVE_CATEGORY="DPA-MISC" THREADING_EFFECT="SPLIT"
DIRECTIVE_DESC="SCHEDULE DIRECTIVE" DIRECTIVE_VENDOR="DPA"
DIRECTIVE_VERSION="1">
- <!-- CAN ADD A TYPE OR ICON NAME
-->
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="FREQUENCY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="FREQUENCY" />
</IN_PARAMETERS>
<OUT_PARAMETERS />
<DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4"
PORT="9070" />
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="DB2" DIRECTIVE_NAME="DATA DIRECTIVE"
THREADING_EFFECT="SPLIT" DIRECTIVE_DESC="SQL DATADIRECTIVE THAT SPLITS
RESULTS ON GIVEN COLUMN" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
<DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
</IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SQL"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SQL" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="COLUMN TO SPLIT"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SPLIT_COLUMN" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="CONNECTION STRING"
PARAM_DATA_TYPE="STRING" PARAM_NAME="CONNECTION_STRING" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE USER NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="USERNAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE PASSWORD"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PWD" />
</IN_PARAMETERS>
```

FIG. 19B

1902

```
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT DATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="SPLIT VALUE"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SPLITVALUE" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="AB1" DIRECTIVE_NAME="TOPX FILTER"
THREADING_EFFECT="STANDARD" DIRECTIVE_DESC="FILTER OUT TOP X ROWS FROM
RESULTSET" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4"
PORT="9070" />
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="COLUMN POSITION FOR TOPX"
PARAM_DATA_TYPE="STRING" PARAM_NAME="TOPX_COLUMN" />
</IN_PARAMETERS>
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT DATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="AB2" DIRECTIVE_NAME="APPENDER"
DIRECTIVE_TYPE="" THREADING_EFFECT="JOIN" DIRECTIVE_DESC="REJOIN SPLIT
RESULTSETS" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
</IN_PARAMETERS>
```

FIG. 19C

1903

```
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT DATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="MB1" DIRECTIVE_NAME="EMAIL RESULTS"
THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE="" DIRECTIVE_DESC="SIMPLE
EMAIL DIRECTIVE" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="EMAIL ADDRESS LIST"
PARAM_DATA_TYPE="STRING" PARAM_NAME="MAILADR" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SUBJECT LINE"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SUBJECT" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="MESSAGE DATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="MESSAGE" />
</IN_PARAMETERS>
<OUT_PARAMETERS />
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="CRB1" DIRECTIVE_NAME="CLEAR STORED
RESULTS" THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE=""
DIRECTIVE_DESC="REMOVE PREVIOUS RESULT SETS FROM REPOSITORY"
DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1" DIRECTIVE_CATEGORY="DPA-
MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="OWNER ID"
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNERID" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULTNAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTNAME" />
</IN_PARAMETERS>
<OUT_PARAMETERS />
</DF_DIRECTIVE_DEFINITION>
```

FIG. 19D

1904

```
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="CRC1" DIRECTIVE_NAME="CLEAR  
PUBLISHED PAGES" THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE=""  
DIRECTIVE_DESC="REMOVE PREVIOUS PUBLISHED PAGES FROM REPOSITORY"  
DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1" DIRECTIVE_CATEGORY="DPA-  
MISC">  
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /  
>  
- <IN_PARAMETERS>  
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="OWNERID"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNERID" />  
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE NAME"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGENAME" />  
</IN_PARAMETERS>  
<OUT_PARAMETERS />  
</DF_DIRECTIVE_DEFINITION>  
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="SR1" DIRECTIVE_NAME="SAVE RESULTS"  
THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE="" DIRECTIVE_DESC="SAVES  
RESULTS TO REPOSITORY" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"  
DIRECTIVE_CATEGORY="DPA-MISC">  
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /  
>  
- <IN_PARAMETERS>  
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET OWNER"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNER" />  
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />  
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET METADATA"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />  
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET NAME"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTNAME" />  
</IN_PARAMETERS>  
- <OUT_PARAMETERS>  
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULTSET ID"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSETID" />  
</OUT_PARAMETERS>  
</DF_DIRECTIVE_DEFINITION>
```

FIG. 19E

1905

```
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="CR2" DIRECTIVE_NAME="PUBLISH PAGE"
THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE="" DIRECTIVE_DESC="PUBLISHES
PAGE & GRANTS SECURITY" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="GRANT SECURITY LIST"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SECDOC" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="METADATA FOR SECDOC"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SECMETA" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="GRANT SECURITY LIST"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SECCOLNAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE OWNER"
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNER" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGENAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE SLICE NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGESLICENAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE DEFINITION"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGEDEFN" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P1" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P2" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P3" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P4" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P5" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P6" />
</IN_PARAMETERS>
```

FIG. 19F

1906

Diagram 1906 illustrates three XML code blocks, each enclosed in a separate box. The first box contains the <OUT_PARAMETERS> block, the second box contains the <DF_DIRECTIVE_DEFINITION> block, and the third box contains the <IN_PARAMETERS> block. An arrow points from the label '1906' to the first box. A large curly bracket on the right side of the diagram groups all three boxes together.

```
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="PAGE ID"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGEID" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="PAGE OWNER"
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNER" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="PAGE NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGENAME" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="PAGE SLICE NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGESLICENAME" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="DB3" DIRECTIVE_NAME="DATA DIRECTIVE"
THREADING_EFFECT="STANDARD" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE
INTO RESULT SET" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
  <IN_PARAMETERS>
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SQL"
PARAM_DATA_TYPE="PARAMETERIZED SQL STRING" PARAM_NAME="SQL" />
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="CONNECTION STRING"
PARAM_DATA_TYPE="STRING" PARAM_NAME="CONNECTION_STRING" />
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE USER NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="USERNAME" />
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE PASSWORD"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PWD" />
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P1" PARAM_DATA_TYPE="STRING"
PARAM_NAME="P1" />
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P2" PARAM_DATA_TYPE="STRING"
PARAM_NAME="P2" />
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P3" PARAM_DATA_TYPE="STRING"
PARAM_NAME="P3" />
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P4" PARAM_DATA_TYPE="STRING"
PARAM_NAME="P4" />
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P5" PARAM_DATA_TYPE="STRING"
PARAM_NAME="P5" />
  </IN_PARAMETERS>
```

FIG. 19G

1907

```
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT DATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="MB2" DIRECTIVE_NAME="SMTP EMAIL
DIRECTIVE" THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE=""
DIRECTIVE_DESC="SEND PUBLISHED PAGES" DIRECTIVE_VENDOR="DPA"
DIRECTIVE_VERSION="1" DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="EMAIL ADDRESSES"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ADDRDOC" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="METADATA FOR ADDRDOC"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ADDRMETA" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="EMAIL COLUMN NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ADDRCOLNAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="EMAIL COLUMN NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="IDCOLNAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SUBJECT"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SUBJECT" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE OWNER"
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNER" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGENAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE INSTANCE"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGEINST" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="MAIL FORMAT"
PARAM_DATA_TYPE="STRING" PARAM_NAME="FORMAT" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SEND FROM MAIL ADDRESS"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SENDFROM" />
</IN_PARAMETERS>
```


FIG. 19H

1908
↙

```
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="ERROR MESSAGES"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ERROR_MSG" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="ABFILTER" DIRECTIVE_NAME="ADVANCED
FILTER" THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE=""
DIRECTIVE_DESC="FILTER RESULTS" DIRECTIVE_VENDOR="DPA"
DIRECTIVE_VERSION="1" DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
<IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="FILTER EXPRESSION"
PARAM_DATA_TYPE="STRING" PARAM_NAME="FILTER_EXP" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULTS METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="METADOC" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULTS"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSDOC" />
</IN_PARAMETERS>
<OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULTS METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="METADOC" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULTS"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSDOC" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="ROW COUNT"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ROWCOUNT" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="TEXTMAILER" DIRECTIVE_NAME="TEXT
MAILER" THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE=""
DIRECTIVE_DESC="TEXT EMAILER" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
```

FIG. 19I

1909

```
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SUBJECT EXPRESSION"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SUBJECT_EXP" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="MESSAGE EXPRESSION"
PARAM_DATA_TYPE="STRING" PARAM_NAME="MESSAGE_EXP" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="EMAIL ADDRESSES"
PARAM_DATA_TYPE="STRING" PARAM_NAME="EMAIL_ADDRESSES" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SEND FROM ADDRESS"
PARAM_DATA_TYPE="STRING" PARAM_NAME="FROM_ADDRESS" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULTS METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="METADOC" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULTS"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSDOC" />
</IN_PARAMETERS>
<OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="ERROR MESSAGES"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ERROR" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
</DF_DIRECTIVE_DEFINITION_LIST>
```

FIG. 20A

2001

```
- <RESULTS_DOC>
- <DP_QUERY_DEF VERSION="1">
  <DPA_IDENTIFIERS DATA_SET="NW" WH_OWNER_NAME="RROC" />
  <HINTS />
- <COLUMN_DEFS>
  <COLUMN_DEF COLUMN_SORT_ATTRIBUTE="NONE"
  COLUMN_TEXT="VENDOR_NAME" TABLE_ALIAS="VENDOR_D"
  COLUMN_NAME="VENDOR_NAME" COLUMN_ALIAS="VENDOR_NAME"
  COLUMN_SORT_ORDER="1" COLUMN_POSITION="1"
  COLUMN_TYPE="GROUP_BY" />
  <COLUMN_DEF COLUMN_SORT_ATTRIBUTE="NONE"
  COLUMN_TEXT="PERIOD_KEY" TABLE_ALIAS="AP_INV_DETAIL_F"
  COLUMN_NAME="PERIOD_KEY" COLUMN_ALIAS="PERIOD_KEY"
  COLUMN_SORT_ORDER="2" COLUMN_POSITION="2"
  COLUMN_TYPE="GROUP_BY" />
  <COLUMN_DEF COLUMN_SORT_ATTRIBUTE="DESC"
  COLUMN_TEXT="SUM(AP_INV_DETAIL_F.INVOICE_LINE_AMOUNT)"
  TABLE_ALIAS="AP_INV_DETAIL_F"
  COLUMN_NAME="INVOICE_LINE_AMOUNT"
  COLUMN_ALIAS="SUM_INVOICE_LINE_AMOUNT"
  COLUMN_SORT_ORDER="3" COLUMN_POSITION="3"
  COLUMN_TYPE="AGGREGATE" />
</COLUMN_DEFS>
- <TABLE_DEFS>
  <TABLE_DEF TABLE_ALIAS="AP_INV_DETAIL_F"
  TABLE_NAME="AP_INV_DETAIL_F" />
  <TABLE_DEF TABLE_ALIAS="VENDOR_D" TABLE_NAME="VENDOR_D" /
>
</TABLE_DEFS>
- <DETAIL_FILTERS>
- <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="VENDOR_TYPE"
  TABLE_ALIAS="VENDOR_D" FILTER_PREC_OPER="AND"
  FILTER_OPERATOR="=">
  <FILTER_VALUE VALUE_DATA_TYPE="STRING">EMPLOYEE</
  FILTER_VALUE>
</FILTER>
```

FIG. 20B

2002

```
- <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="COMPANY_KEY"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND"
FILTER_OPERATOR="=">
  <FILTER_VALUE VALUE_DATA_TYPE="STRING">01</FILTER_VALUE>
</FILTER>
</DETAIL_FILTERS>
- <AGGREGATE_FILTERS>
- <FILTER FILTER_TYPE="VALUE"
COLUMN_TEXT="SUM(INVOICE_LINE_AMOUNT)"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND"
FILTER_OPERATOR="=">
  <FILTER_VALUE VALUE_DATA_TYPE="NUMBER">0</FILTER_VALUE>
</FILTER>
</AGGREGATE_FILTERS>
</DP_QUERY_DEF>
<DPA_QUERY_SERVER_INFO SERVICE="DPA_QUERY_SERVER"
MACHINE="EXH_2K" PORT="8069"
WAREHOUSE_SERVER="HD.DPAPPLICATIONS.COM"
WAREHOUSE_DBNAME="DEMO30"
WAREHOUSE_OWNER="RROC">FOODADDY</
DPA_QUERY_SERVER_INFO>
- <DP_DS_METADATA>
  <DP_COLUMN COLUMN_NAME="VENDOR_NAME"
COLUMN_DATA_TYPE="VARCHAR2" COLUMN_DS_ALIAS="C1"
COLUMN_TYPE="GROUP_BY" COLUMN_SORT_ATTRIBUTE="NONE"
COLUMN_SOURCE_ALIAS="VENDOR_NAME"
COLUMN_LABEL="VENDOR NAME" COLUMN_DESC=""
COLUMN_IS_CURRENCY="N" />
  <DP_COLUMN COLUMN_NAME="PERIOD_KEY"
COLUMN_DATA_TYPE="VARCHAR2" COLUMN_DS_ALIAS="C2"
COLUMN_TYPE="GROUP_BY" COLUMN_SORT_ATTRIBUTE="NONE"
COLUMN_SOURCE_ALIAS="PERIOD_KEY" COLUMN_LABEL="PERIOD
KEY" COLUMN_DESC="" COLUMN_IS_CURRENCY="N" />
  <DP_COLUMN COLUMN_NAME="SUM_INVOICE_LINE_AMOUNT"
COLUMN_DATA_TYPE="NUMBER" COLUMN_DS_ALIAS="C3"
COLUMN_TYPE="AGGREGATE" COLUMN_SORT_ATTRIBUTE="DESC"
COLUMN_SOURCE_ALIAS="SUM_INVOICE_LINE_AMOUNT"
COLUMN_LABEL="INVOICE LINE AMOUNT" COLUMN_DESC=""
COLUMN_IS_CURRENCY="Y" />
```

FIG. 20C

2003

```
</DP_DS_METADATA>
- <DP_DS>
- <R>
  <C1>JAMIE FROST</C1>
  <C2>DEC-97</C2>
  <C3>28159</C3>
</R>
- <R>
  <C1>JAMIE FROST</C1>
  <C2>JAN-98</C2>
  <C3>15114.76</C3>
</R>
- <R>
  <C1>JAMIE FROST</C1>
  <C2>FEB-98</C2>
  <C3>4417.86</C3>
</R>
- <R>
  <C1>KERRY JONES</C1>
  <C2>APR-98</C2>
  <C3>3439.10</C3>
</R>
- <R>
  <C1>KERRY JONES</C1>
  <C2>DEC-97</C2>
  <C3>3263</C3>
</R>
- <R>
  <C1>JAMIE FROST</C1>
  <C2>NOV-97</C2>
  <C3>2907.85</C3>
</R>
- <R>
  <C1>KERRY JONES</C1>
  <C2>FEB-98</C2>
  <C3>2799.31</C3>
</R>
```

FIG. 20D

2004

- <R>
 <C1>KERRY JONES</C1>
 <C2>MAY-98</C2>
 <C3>2698.64</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>APR-98</C2>
 <C3>2657.20</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>MAY-98</C2>
 <C3>2549.68</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>MAR-98</C2>
 <C3>2511.98</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>MAR-98</C2>
 <C3>2459.87</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>JUN-98</C2>
 <C3>2219.90</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>JUN-98</C2>
 <C3>2182.29</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>JAN-98</C2>
 <C3>1516</C3>
 </R>

FIG. 20E

- <R>
<C1>BLACK, CHRIS</C1>
<C2>NOV-97</C2>
<C3>651.06</C3>
</R>
</DP_DS>
</RESULTS_DOC>



2005
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FIG. 20E

FIG. 21A

2101

```
- <DF_WORKFLOW VERSION="1">
  <DF_WORKFLOW_HEADER DF_EDITOR_MAX_ID="172" FLOW_NAME="QTY ANALYSIS"
  FLOW_DESCRIPTION="QTY ANALYSIS FLOW" FLOW_STATUS="FLOW STATUS"
  FLOW_NOTES="" FLOW_AUTHOR="FLOW AUTHOR" />
- <DF_WORKFLOW_PARAMETERS>
- <PARAMETER NODE_ID="13" PARAM_DATA_TYPE="STRING"
  PARAM_CAPTION="CONNECT STRING" PARAM_NAME="CONNECT_STRING"
  PARAM_TYPE="OUT">
  <PARAM_SOURCE
  PARAM_TYPE="VALUE">JDBC:ORACLE:THIN:@172.16.1.34:1521:DEMO30</
  PARAM_SOURCE>
  </PARAMETER>
- <PARAMETER NODE_ID="14" PARAM_DATA_TYPE="STRING"
  PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USER_NAME"
  PARAM_TYPE="OUT">
  <PARAM_SOURCE PARAM_TYPE="VALUE">RROC609</PARAM_SOURCE>
  </PARAMETER>
- <PARAMETER NODE_ID="15" PARAM_DATA_TYPE="STRING"
  PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="USER_PWD"
  PARAM_TYPE="OUT">
  <PARAM_SOURCE PARAM_TYPE="VALUE">DPA</PARAM_SOURCE>
  </PARAMETER>
- <PARAMETER NODE_ID="16" PARAM_DATA_TYPE="STRING"
  PARAM_CAPTION="OWNERNAME" PARAM_NAME="OWNERNAME" PARAM_TYPE="OUT">
  <PARAM_SOURCE PARAM_TYPE="VALUE">QTY_ANALYSIS</PARAM_SOURCE>
  </PARAMETER>
- <PARAMETER NODE_ID="17" PARAM_DATA_TYPE="STRING"
  PARAM_CAPTION="CURRENT PERIOD" PARAM_NAME="CURRPERIOD"
  PARAM_TYPE="OUT">
  <PARAM_SOURCE PARAM_TYPE="VALUE">(1997-09) SEP-97</PARAM_SOURCE>
  </PARAMETER>
</DF_WORKFLOW_PARAMETERS>
- <DF_WORKFLOW_ACTIVITIES>
- <ACTIVITY NODE_ID="11">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
  ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
  DIRECTIVE_NAME="SCHEDULER" THREADING_EFFECT="SPLIT" DIRECTIVE_ID="SB1"
  DIRECTIVE_VERSION="1" DIRECTIVE_DESC="SCHEDULE DIRECTIVE" />
```


FIG. 21B

2102

```
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="12" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="FREQUENCY" PARAM_NAME="FREQUENCY" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">0</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS />
</ACTIVITY>
- <ACTIVITY_NODE_ID="18">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="CLEAR
STORED RESULTS" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="CRB1"
DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1" DIRECTIVE_DESC="REMOVE PREVIOUS
RESULT SETS FROM REPOSITORY" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="19" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="OWNER
ID" PARAM_NAME="OWNERID" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="20" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTNAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">*</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS />
</ACTIVITY>
- <ACTIVITY_NODE_ID="21">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="CLEAR
PUBLISHED PAGES" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="CRC1"
DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1" DIRECTIVE_DESC="REMOVE PREVIOUS
PUBLISHED PAGES FROM REPOSITORY" />
```

FIG. 21C

2103

```
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="22" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="OWNERID" PARAM_NAME="OWNERID" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="23" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
NAME" PARAM_NAME="PAGENAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">*</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS />
</ACTIVITY>
- <ACTIVITY_NODE_ID="26">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="DETAIL QUERY" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="DATA
DIRECTIVE" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="DB3"
DIRECTIVE_VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE INTO
RESULT SET" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="27" PARAM_DATA_TYPE="PARAMETERIZED SQL STRING"
PARAM_CAPTION="SQL" PARAM_NAME="SQL" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">SELECT
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_DESC
COMPONENT_ITEM_DESC,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ISSUED)
QUANTITY_ISSUED,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ON_HAND)
QUANTITY_ON_HAND,SUM(NW_DISC_SHORTAGE_F.QUANTITY_SHORT)
QUANTITY_SHORT,SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY)
REQUIRED_QUANTITY FROM NW_COMPONENT_ITEM_D_0
NW_COMPONENT_ITEM_D,NW_DISC_SHORTAGE_F_0
NW_DISC_SHORTAGE_F,NW_ORG_PERIOD_D_0
NW_ORG_PERIOD_D,NW_WIP_ENTITY_D_0 NW_WIP_ENTITY_D WHERE
NW_DISC_SHORTAGE_F.COMPONENT_ITEM_KEY =
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_KEY AND
NW_DISC_SHORTAGE_F.ORG_PERIOD_KEY = NW_ORG_PERIOD_D.ORG_PERIOD_KEY
AND NW_DISC_SHORTAGE_F.WIP_ENTITY_KEY =NW_WIP_ENTITY_D.WIP_ENTITY_KEY
AND NW_ORG_PERIOD_D.ORG_PERIOD = '#P1#' GROUP BY
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_DESC HAVING
SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY) > 0 ORDER BY
REQUIRED_QUANTITY DESC, COMPONENT_ITEM_DESC,REQUIRED_QUANTITY,
QUANTITY_ISSUED, QUANTITY_SHORT, QUANTITY_ON_HAND</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21D

2104
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```
- <PARAMETER NODE_ID="28" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="29" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USERNAME"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">14</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="30" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">15</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="31" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1"
PARAM_NAME="P1" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">17</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="32" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P2"
PARAM_NAME="P2" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="33" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3"
PARAM_NAME="P3" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="34" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P4"
PARAM_NAME="P4" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="35" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5"
PARAM_NAME="P5" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
```

FIG. 21E

2105

```
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="36" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
DATA" PARAM_NAME="RESULTSET" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="37" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
- <ACTIVITY NODE_ID="39">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="TREND QUERY" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="DATA
DIRECTIVE" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="DB3"
DIRECTIVE_VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE INTO
RESULT SET" />
  <ACTIVITY_IN_PARAMETERS>
  - <PARAMETER NODE_ID="40" PARAM_DATA_TYPE="PARAMETERIZED SQL STRING"
PARAM_CAPTION="SQL" PARAM_NAME="SQL" PARAM_TYPE="IN">
    <PARAM_SOURCE PARAM_TYPE="VALUE">SELECT NW_ORG_PERIOD_D.ORG_PERIOD
PERIOD_NAME,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ISSUED)
QUANTITY_ISSUED,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ON_HAND)
QUANTITY_ON_HAND,SUM(NW_DISC_SHORTAGE_F.QUANTITY_SHORT)
QUANTITY_SHORT,SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY)
REQUIRED_QUANTITY FROM NW_DISC_SHORTAGE_F_0 NW_DISC_SHORTAGE_F,
NW_ORG_PERIOD_D_0 NW_ORG_PERIOD_D WHERE
NW_DISC_SHORTAGE_F.ORG_PERIOD_KEY = NW_ORG_PERIOD_D.ORG_PERIOD_KEY
GROUP BY NW_ORG_PERIOD_D.ORG_PERIOD ORDER BY PERIOD_NAME DESC</
PARAM_SOURCE>
  </PARAMETER>
  - <PARAMETER NODE_ID="41" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING"
PARAM_TYPE="IN">
    <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
  </PARAMETER>
```

FIG. 21F

2106
↙

```
- <PARAMETER NODE_ID="42" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USERNAME"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">14</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="43" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">15</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="44" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1"
PARAM_NAME="P1" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">17</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="45" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P2"
PARAM_NAME="P2" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="46" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3"
PARAM_NAME="P3" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="47" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P4"
PARAM_NAME="P4" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="48" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5"
PARAM_NAME="P5" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="49" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
DATA" PARAM_NAME="RESULTSET" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="50" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
```

FIG. 21G

2107

```
- <ACTIVITY_NODE_ID="52">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="SUMMARY QUERY" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="DATA
DIRECTIVE" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="DB3"
DIRECTIVE_VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE INTO
RESULT SET" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER_NODE_ID="53" PARAM_DATA_TYPE="PARAMETERIZED SQL STRING"
PARAM_CAPTION="SQL" PARAM_NAME="SQL" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">SELECT
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_DESC
COMPONENT_ITEM_DESC,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ISSUED)
QUANTITY_ISSUED,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ON_HAND)
QUANTITY_ON_HAND,SUM(NW_DISC_SHORTAGE_F.QUANTITY_SHORT)
QUANTITY_SHORT,SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY)
REQUIRED_QUANTITY FROM NW_COMPONENT_ITEM_D_0
NW_COMPONENT_ITEM_D,NW_DISC_SHORTAGE_F_0
NW_DISC_SHORTAGE_F,NW_ORG_PERIOD_D_0
NW_ORG_PERIOD_D,NW_WIP_ENTITY_D_0 NW_WIP_ENTITY_D WHERE
NW_DISC_SHORTAGE_F.COMPONENT_ITEM_KEY =
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_KEY AND
NW_DISC_SHORTAGE_F.ORG_PERIOD_KEY = NW_ORG_PERIOD_D.ORG_PERIOD_KEY
AND NW_DISC_SHORTAGE_F.WIP_ENTITY_KEY =NW_WIP_ENTITY_D.WIP_ENTITY_KEY
AND NW_ORG_PERIOD_D.ORG_PERIOD = '#P1#' GROUP BY
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_DESC HAVING
SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY) > 0 ORDER BY
REQUIRED_QUANTITY DESC, COMPONENT_ITEM_DESC,REQUIRED_QUANTITY,
QUANTITY_ISSUED, QUANTITY_SHORT, QUANTITY_ON_HAND</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="54" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="55" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USERNAME"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">14</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21H

2108

```
- <PARAMETER NODE_ID="56" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">15</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="57" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1"
PARAM_NAME="P1" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">17</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="58" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P2"
PARAM_NAME="P2" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="59" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3"
PARAM_NAME="P3" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="60" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P4"
PARAM_NAME="P4" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="61" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5"
PARAM_NAME="P5" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="62" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
DATA" PARAM_NAME="RESULTSET" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="63" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
```

FIG. 21I

2109

```
- <ACTIVITY_NODE_ID="65">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="SAVE RESULTS"
DIRECTIVE_ID="SR1" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="SAVES RESULTS TO REPOSITORY" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER_NODE_ID="66" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="67" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET" PARAM_NAME="RESULTSET" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">36</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="68" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">37</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="69" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET NAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">DETAIL</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER_NODE_ID="70" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTSET ID" PARAM_NAME="RESULTSETID" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
- <ACTIVITY_NODE_ID="72">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="SAVE RESULTS"
DIRECTIVE_ID="SR1" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="SAVES RESULTS TO REPOSITORY" />
```


FIG. 21J

2110

```
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="73" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="74" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET" PARAM_NAME="RESULTSET" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">49</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="75" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">50</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="76" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET NAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">TREND</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="77" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTSET ID" PARAM_NAME="RESULTSETID" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
- <ACTIVITY_NODE_ID="79">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="SAVE RESULTS"
DIRECTIVE_ID="SR1" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="SAVES RESULTS TO REPOSITORY" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="80" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21K

2111

```
- <PARAMETER NODE_ID="81" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET" PARAM_NAME="RESULTSET" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">62</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="82" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">63</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="83" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET NAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">SUMMARY</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS>
<PARAMETER NODE_ID="84" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTSET ID" PARAM_NAME="RESULTSETID" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
<ACTIVITY NODE_ID="87">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="PUBLISH PAGE"
DIRECTIVE_ID="CR2" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="PUBLISHES PAGE & GRANTS SECURITY" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="88" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="GRANT
SECURITY LIST" PARAM_NAME="SECDOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">162</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="89" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="METADATA FOR SECDOC" PARAM_NAME="SECMETA"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">163</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="90" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="GRANT
SECURITY LIST" PARAM_NAME="SECCOLNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">USERNAME</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21L

2112

```
- <PARAMETER NODE_ID="91" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="92" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
NAME" PARAM_NAME="PAGENAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">STARTPAGE</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="93" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
SLICE NAME" PARAM_NAME="PAGESLICENAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">FIRST</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="94" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
DEFINITION" PARAM_NAME="PAGEDEFN" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE"><DP_PAGE_DEF><LAYER
LAYER_TYPE="HORIZONTAL" LAYER_BORDER="0" LAYER_PADDING="3"
LAYER_HEIGHT="100%" LAYER_WIDTH="100%"><LAYER LAYER_TYPE="VERTICAL"
LAYER_PADDING="3" LAYER_BORDER="0" LAYER_HEIGHT="225"
LAYER_WIDTH="100%"><LAYER LAYER_TYPE="WIDGET" LAYER_HEIGHT="100%"
LAYER_WIDTH="50%"><WIDGET WIDGET_ID="DP_PIE_CHART"><PARAMETERS><PARAM
PARAM_NAME="TITLE">MY PIE</PARAM><PARAM PARAM_NAME="DSID">#P3#</
PARAM><PARAM PARAM_NAME="VALUECOL">REQUIRED_QUANTITY</PARAM><PARAM
PARAM_NAME="LABELCOL">COMPONENT_ITEM_DESC</PARAM><PARAM
PARAM_NAME="FILTERTYPE">TOP</PARAM><PARAM PARAM_NAME="FILTERVAL">10</
PARAM></PARAMETERS></WIDGET></LAYER><LAYER LAYER_TYPE="WIDGET"
LAYER_HEIGHT="100%" LAYER_WIDTH="50%"><WIDGET
WIDGET_ID="DP_BAR_CHART2"><PARAMETERS><PARAM PARAM_NAME="TITLE">MY
CHART TITLE</PARAM><PARAM PARAM_NAME="DSID">#P2#</PARAM><PARAM
PARAM_NAME="MEASURECOLS">QUANTITY_ON_HAND|QUANTITY_ISSUED|QUANTITY_SH
ORT|REQUIRED_QUANTITY</PARAM><PARAM PARAM_NAME="XAXISLABELS">ON
HAND|ISSUED|SHORT|REQUIRED</PARAM><PARAM
PARAM_NAME="SERIESCOL">PERIOD_NAME</PARAM></PARAMETERS></WIDGET></
LAYER></LAYER><LAYER LAYER_TYPE="HORIZONTAL" LAYER_BORDER="0"
LAYER_PADDING="3" LAYER_HEIGHT="80%" LAYER_WIDTH="100%"><LAYER
LAYER_TYPE="WIDGET" LAYER_HEIGHT="100%" LAYER_WIDTH="100%"><WIDGET
WIDGET_ID="DP_REPORT_VIEWER"><PARAMETERS><PARAM PARAM_NAME="TITLE">MY
TITLE</PARAM> <PARAM PARAM_NAME="DSID">#P1#</PARAM></PARAMETERS></
WIDGET></LAYER></LAYER></LAYER></DP_PAGE_DEF></PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="95" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P1" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">70</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21M

2113

```
- <PARAMETER NODE_ID="96" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P2" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">77</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="97" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P3" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">84</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="98" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P4" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">70</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="99" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P5" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">70</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="100" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P6" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">70</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="101" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
ID" PARAM_NAME="PAGEID" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="102" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
OWNER" PARAM_NAME="OWNER" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="103" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
NAME" PARAM_NAME="PAGENAME" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="104" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
SLICE NAME" PARAM_NAME="PAGESLICENAME" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
```

FIG. 21N

2114

```
- <ACTIVITY_NODE_ID="108">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="OUTOF BOUNDS QTY" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="ADVANCED FILTER"
DIRECTIVE_ID="ABFILTER" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="FILTER RESULTS" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER_NODE_ID="109" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="FILTER
EXPRESSION" PARAM_NAME="FILTER_EXP" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">#REQUIRED_QUANTITY# > 200</
PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="110" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS METADATA" PARAM_NAME="METADOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">63</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="111" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS" PARAM_NAME="RESULTSDOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">62</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER_NODE_ID="112" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS METADATA" PARAM_NAME="METADOC"
PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER_NODE_ID="113" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS" PARAM_NAME="RESULTSDOC" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER_NODE_ID="114" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="ROW
COUNT" PARAM_NAME="ROWCOUNT" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
```

FIG. 210

2115

```
- <ACTIVITY_NODE_ID="116">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="TEXT EMAILER"
DIRECTIVE_ID="TEXTEMAILER" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="TEXT EMAILER" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER_NODE_ID="117" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="SUBJECT EXPRESSION" PARAM_NAME="SUBJECT_EXP"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">OUT OF BOUNDS QTY CONDITION</
PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="118" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="MESSAGE EXPRESSION" PARAM_NAME="MESSAGE_EXP"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">COMPONENT: #COMPONENT_ITEM_DESC#
REQUIRES #REQUIRED_QUANTITY# ADDITIONAL UNITS</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="119" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL
ADDRESSES" PARAM_NAME="EMAIL_ADDRESSES" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">EXH@DPAPPLICATIONS.COM</
PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="120" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="SEND
FROM ADDRESS" PARAM_NAME="FROM_ADDRESS" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">DF@DPAPPLICATIONS.COM</
PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="121" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS METADATA" PARAM_NAME="METADOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">112</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="122" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS" PARAM_NAME="RESULTSDOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">113</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
```

FIG. 21P

2116
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```
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="123" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="ERROR
MESSAGES" PARAM_NAME="ERROR" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
- <ACTIVITY NODE_ID="125">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="EMAIL LINK" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="SMTP EMAIL DIRECTIVE"
DIRECTIVE_ID="MB2" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="SEND PUBLISHED PAGES" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="126" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL
ADDRESSES" PARAM_NAME="ADDRDOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">162</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="127" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="METADATA FOR ADDRDOC" PARAM_NAME="ADDRMETA"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">163</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="128" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL
COLUMN NAME" PARAM_NAME="ADDRCOLNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">EMAIL_ADDRESS</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="129" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL
COLUMN NAME" PARAM_NAME="IDCOLNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">USERNAME</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="130" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="SUBJECT" PARAM_NAME="SUBJECT" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">QTY ANALYSIS UPDATED</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21Q

2117

```
- <PARAMETER NODE_ID="131" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">102</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="132" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
NAME" PARAM_NAME="PAGENAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">103</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="133" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
INSTANCE" PARAM_NAME="PAGEINST" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">104</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="134" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="MAIL
FORMAT" PARAM_NAME="FORMAT" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">DYNAM</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="135" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="SEND
FROM MAIL ADDRESS" PARAM_NAME="SENDFROM" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">DF@DPAPPLICATIONS.COM</
PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="136" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="ERROR
MESSAGES" PARAM_NAME="ERROR_MSG" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
- <ACTIVITY NODE_ID="152">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="DATA DIRECTIVE"
DIRECTIVE_ID="DB3" DIRECTIVE_VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND
ASSEMBLE INTO RESULT SET" />
```


FIG. 21R

2118

```
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="153" PARAM_DATA_TYPE="PARAMETERIZED SQL STRING"
PARAM_CAPTION="SQL" PARAM_NAME="SQL" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">SELECT USERNAME,EMAIL_ADDRESS FROM
OA3.DF_QTYAPP_USERS</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="154" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING"
PARAM_TYPE="IN">
  <PARAM_SOURCE
PARAM_TYPE="VALUE">JDBC:ORACLE:THIN:@HD.DPAPPLICATIONS.COM:1521:NRB816</
PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="155" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USERNAME"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">OA3</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="156" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">OA3</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="157" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1"
PARAM_NAME="P1" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="158" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P2"
PARAM_NAME="P2" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="159" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3"
PARAM_NAME="P3" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="160" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P4"
PARAM_NAME="P4" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="161" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5"
PARAM_NAME="P5" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
```

FIG. 21S

2119

```
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="162" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULT DATA" PARAM_NAME="RESULTSET" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="163" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULT METADATA" PARAM_NAME="RESULTMETADATA"
PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
</DF_WORKFLOW_ACTIVITIES>
- <DF_WORKFLOW_TRANSITIONS>
  <TRANSITION NODE_ID="24" FROM_ACTIVITY_ID="11" TO_ACTIVITY_ID="18"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="25" FROM_ACTIVITY_ID="11" TO_ACTIVITY_ID="21"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="71" FROM_ACTIVITY_ID="26" TO_ACTIVITY_ID="65"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="78" FROM_ACTIVITY_ID="39" TO_ACTIVITY_ID="72"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="85" FROM_ACTIVITY_ID="52" TO_ACTIVITY_ID="79"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="105" FROM_ACTIVITY_ID="65" TO_ACTIVITY_ID="87"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="106" FROM_ACTIVITY_ID="72" TO_ACTIVITY_ID="87"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="107" FROM_ACTIVITY_ID="79" TO_ACTIVITY_ID="87"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="115" FROM_ACTIVITY_ID="52" TO_ACTIVITY_ID="108"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="124" FROM_ACTIVITY_ID="108" TO_ACTIVITY_ID="116"
TRANSITION_EXPRESSION="#114# > "0" DESCRIPTION="EMAIL ONLY EXCEPTIONS"
NOTES="NOTES" />
```

FIG. 21T

2120
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```
<TRANSITION NODE_ID="137" FROM_ACTIVITY_ID="87" TO_ACTIVITY_ID="125"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
<TRANSITION NODE_ID="164" FROM_ACTIVITY_ID="18" TO_ACTIVITY_ID="152"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
<TRANSITION NODE_ID="165" FROM_ACTIVITY_ID="21" TO_ACTIVITY_ID="152"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
<TRANSITION NODE_ID="166" FROM_ACTIVITY_ID="152" TO_ACTIVITY_ID="26"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
<TRANSITION NODE_ID="167" FROM_ACTIVITY_ID="152" TO_ACTIVITY_ID="39"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
<TRANSITION NODE_ID="168" FROM_ACTIVITY_ID="152" TO_ACTIVITY_ID="52"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
</DF_WORKFLOW_TRANSITIONS>
<DF_WORKFLOW_EDITOR>
<ACTIVITY_VISUAL_EDITING NODE_ID="11" YCOORD="140" XCOORD="12" />
<ACTIVITY_VISUAL_EDITING NODE_ID="18" YCOORD="330" XCOORD="47" />
<ACTIVITY_VISUAL_EDITING NODE_ID="21" YCOORD="50" XCOORD="60" />
<ACTIVITY_VISUAL_EDITING NODE_ID="26" YCOORD="200" XCOORD="294" />
<ACTIVITY_VISUAL_EDITING NODE_ID="39" YCOORD="70" XCOORD="294" />
<ACTIVITY_VISUAL_EDITING NODE_ID="52" YCOORD="320" XCOORD="304" />
<ACTIVITY_VISUAL_EDITING NODE_ID="65" YCOORD="200" XCOORD="408" />
<ACTIVITY_VISUAL_EDITING NODE_ID="72" YCOORD="70" XCOORD="408" />
<ACTIVITY_VISUAL_EDITING NODE_ID="79" YCOORD="320" XCOORD="428" />
<ACTIVITY_VISUAL_EDITING NODE_ID="87" YCOORD="200" XCOORD="537" />
<ACTIVITY_VISUAL_EDITING NODE_ID="108" YCOORD="430" XCOORD="359" />
<ACTIVITY_VISUAL_EDITING NODE_ID="116" YCOORD="420" XCOORD="587" />
<ACTIVITY_VISUAL_EDITING NODE_ID="125" YCOORD="320" XCOORD="580" />
<ACTIVITY_VISUAL_EDITING NODE_ID="152" YCOORD="200" XCOORD="160" />
</DF_WORKFLOW_EDITOR>
</DF_WORKFLOW>
```

FIG. 22A

2201

```
<DP_QUERY_DEF VERSION="1">
  <DPA_IDENTIFIERS DATA_SET="OAS" WH_OWNER_NAME="PART"/>
  <HINTS/>
  <COLUMN_DEFS>
    <COLUMN_DEF SUMMARY_TYPE="SUM" COLUMN_NAME="PTD_BUDGET"
COLUMN_ALIAS="PTD_BUDGET" COLUMN_SORT_ORDER="3"
COLUMN_SORT_ATTRIBUTE="NONE" COLUMN_TYPE="MEASURE" COLUMN_EXPR=""
COLUMN_POSITION="3" TABLE_ALIAS="INCOME_STMT_A" COLUMN_TAG="PTD_BUDGET"/>
    <COLUMN_DEF SUMMARY_TYPE="NONE" COLUMN_NAME="LINE_NAME"
COLUMN_ALIAS="LINE_NAME" COLUMN_SORT_ORDER="1"
COLUMN_SORT_ATTRIBUTE="ASC" COLUMN_TYPE="ATTRIBUTE" COLUMN_EXPR=""
COLUMN_POSITION="1" TABLE_ALIAS="INC_STMT_LINES_D" COLUMN_TAG="LINE_NAME"/>
    <COLUMN_DEF SUMMARY_TYPE="SUM" COLUMN_NAME="PTD_VARIANCE_PCT"
COLUMN_ALIAS="PTD_VARIANCE_PCT" COLUMN_SORT_ORDER="6"
COLUMN_SORT_ATTRIBUTE="NONE" COLUMN_TYPE="MEASURE" COLUMN_EXPR=""
COLUMN_POSITION="6" TABLE_ALIAS="INCOME_STMT_A"
COLUMN_TAG="PTD_VAR_PCT"/>
    <COLUMN_DEF SUMMARY_TYPE="NONE" COLUMN_NAME="DEPARTMENT_DESC"
COLUMN_ALIAS="DEPT_DESC" COLUMN_SORT_ORDER="2"
COLUMN_SORT_ATTRIBUTE="ASC" COLUMN_TYPE="ATTRIBUTE" COLUMN_EXPR=""
COLUMN_POSITION="2" TABLE_ALIAS="DEPARTMENT_D" COLUMN_TAG="DEPT_DESC"/>
    <COLUMN_DEF SUMMARY_TYPE="SUM" COLUMN_NAME="PTD_VARIANCE"
COLUMN_ALIAS="PTD_VARIANCE" COLUMN_SORT_ORDER="5"
COLUMN_SORT_ATTRIBUTE="NONE" COLUMN_TYPE="MEASURE" COLUMN_EXPR=""
COLUMN_POSITION="5" TABLE_ALIAS="INCOME_STMT_A" COLUMN_TAG="PTD_VAR"/>
    <COLUMN_DEF SUMMARY_TYPE="SUM" COLUMN_NAME="PTD_ACTUAL"
COLUMN_ALIAS="PTD_ACTUAL" COLUMN_SORT_ORDER="4"
COLUMN_SORT_ATTRIBUTE="NONE" COLUMN_TYPE="MEASURE" COLUMN_EXPR=""
COLUMN_POSITION="4" TABLE_ALIAS="INCOME_STMT_A" COLUMN_TAG="PTD_ACTUAL"/>
  </COLUMN_DEFS>
```

FIG. 22B

2202

```
<TABLE_DEFS>
  <TABLE_DEF TABLE_ALIAS="VENDOR_D" TABLE_NAME="VENDOR_D"/>
  <TABLE_DEF TABLE_ALIAS="AP_INV_DETAIL_F" TABLE_NAME="AP_INV_DETAIL_F"/>
  <TABLE_DEF TABLE_ALIAS="INCOME_STMT_A" TABLE_NAME="INCOME_STMT_A"/>
  <TABLE_DEF TABLE_ALIAS="DEPARTMENT_D" TABLE_NAME="DEPARTMENT_D"/>
  <TABLE_DEF TABLE_ALIAS="INC_STMT_LINES_D"
TABLE_NAME="INC_STMT_LINES_D"/>
</TABLE_DEFS>
<DETAIL_FILTERS>
  <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="PERIOD_KEY"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND" FILTER_OPERATOR="=">
    <FILTER_VALUE VALUE_DATA_TYPE="STRING">DEC-97</FILTER_VALUE>
  </FILTER>
  <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="VENDOR_TYPE"
TABLE_ALIAS="VENDOR_D" FILTER_PREC_OPER="AND" FILTER_OPERATOR="=">
    <FILTER_VALUE VALUE_DATA_TYPE="STRING">EMPLOYEE</FILTER_VALUE>
  </FILTER>
  <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="COMPANY_KEY"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND" FILTER_OPERATOR="=">
    <FILTER_VALUE VALUE_DATA_TYPE="STRING">01</FILTER_VALUE>
  </FILTER>
  <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="DEPARTMENT_KEY"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND" FILTER_OPERATOR="=">
    <FILTER_VALUE VALUE_DATA_TYPE="STRING">560</FILTER_VALUE>
  </FILTER>
</DETAIL_FILTERS>
<AGGREGATE_FILTERS>
  <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="SUM(INVOICE_LINE_AMOUNT)"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND"
FILTER_OPERATOR=">">
    <FILTER_VALUE VALUE_DATA_TYPE="NUMBER">0</FILTER_VALUE>
  </FILTER>
</AGGREGATE_FILTERS>
</DP_QUERY_DEF>
```

FIG. 23A

2301

```
- <DP_SCHEMA_DOC VERSION="1">
  <DPA_QUERY_SERVER_INFO SERVICE="DPA_QUERY_SERVER" MACHINE="EXH_2K"
PORT="8069" WAREHOUSE_SERVER="HD.DPAPPLICATIONS.COM"
WAREHOUSE_DBNAME="DEMO30" WAREHOUSE_OWNER="RROC"
SCHEMA="AP_INV_DETAIL_F" DATA_SET="NW">FOODADDY</
DPA_QUERY_SERVER_INFO>
- <DP_DIMENSIONS>
- <DIMENSION LABEL="ACCOUNTING DATE" NAME="ACCOUNTING_DATE_D">
  <ATTRIBUTE LABEL="ACCOUNTING DATE KEY" NAME="ACCOUNTING_DATE_KEY" />
  <ATTRIBUTE LABEL="ACCOUNTING MONTH" NAME="ACCOUNTING_MONTH" />
  <ATTRIBUTE LABEL="ACCOUNTING PERIOD" NAME="ACCOUNTING_PERIOD" />
  <ATTRIBUTE LABEL="ACCOUNTING PERIOD KEY"
NAME="ACCOUNTING_PERIOD_KEY" />
  <ATTRIBUTE LABEL="ACCOUNTING PERIOD QUARTER"
NAME="ACCOUNTING_PERIOD_QUARTER" />
  <ATTRIBUTE LABEL="ACCOUNTING QUARTER" NAME="ACCOUNTING_QUARTER" />
  <ATTRIBUTE LABEL="ACCOUNTING WEEK ENDING"
NAME="ACCOUNTING_WEEK_ENDING" />
  <ATTRIBUTE LABEL="ACCOUNTING YEAR" NAME="ACCOUNTING_YEAR" />
</DIMENSION>
- <DIMENSION LABEL="ACCOUNT" NAME="ACCOUNT_D">
  <ATTRIBUTE LABEL="ACCOUNT" NAME="ACCOUNT" />
  <ATTRIBUTE LABEL="LINE NAME" NAME="LINE_NAME" />
  <ATTRIBUTE LABEL="LINE SEQUENCE KEY" NAME="LINE_SEQUENCE_KEY" />
  <ATTRIBUTE LABEL="REPORT SECTION" NAME="REPORT_SECTION" />
  <ATTRIBUTE LABEL="REPORT SEQUENCE" NAME="REPORT_SEQUENCE" />
  <ATTRIBUTE LABEL="ACCOUNT KEY" NAME="ACCOUNT_KEY" />
  <ATTRIBUTE LABEL="ACCOUNT DESCRIPTION" NAME="ACCOUNT_DESC" />
</DIMENSION>
- <DIMENSION LABEL="ACCOUNT ROLLUPS" NAME="ACCOUNT_RLUP_D">
  <ATTRIBUTE LABEL="ACCOUNT" NAME="ACCOUNT" />
  <ATTRIBUTE LABEL="ACCOUNT KEY" NAME="ACCOUNT_KEY" />
  <ATTRIBUTE LABEL="ACCOUNT ROLLUP DESCRIPTION" NAME="ROLLUP_DESC" />
  <ATTRIBUTE LABEL="ACCOUNT ROLLUP CODE" NAME="ROLLUP_CODE" />
  <ATTRIBUTE LABEL="ACCOUNT DESCRIPTION" NAME="ACCOUNT_DESC" />
</DIMENSION>
- <DIMENSION LABEL="AP HOLD CODES" NAME="AP_HOLD_CODE_D">
  <ATTRIBUTE LABEL="AP HOLD CODE" NAME="AP_HOLD_CODE" />
  <ATTRIBUTE LABEL="AP HOLD CODE DESCRIPTION" NAME="AP_HOLD_CODE_DESC"
/>
  <ATTRIBUTE LABEL="AP HOLD CODE KEY" NAME="AP_HOLD_CODE_KEY" />
  <ATTRIBUTE LABEL="AP HOLD CODE TYPE" NAME="AP_HOLD_CODE_TYPE" />
</DIMENSION>
```

FIG. 23B

2302

```
- <DIMENSION LABEL="AP HOLD STATUS" NAME="AP_HOLD_STATUS_D">
  <ATTRIBUTE LABEL="AP HOLD STATUS" NAME="AP_HOLD_STATUS" />
  <ATTRIBUTE LABEL="AP HOLD STATUS KEY" NAME="AP_HOLD_STATUS_KEY" />
</DIMENSION>
- <DIMENSION LABEL="AP INVOICES" NAME="AP_INVOICE_D">
  <ATTRIBUTE LABEL="AP INVOICE NUMBER" NAME="AP_INVOICE" />
  <ATTRIBUTE LABEL="AP INVOICE DATE" NAME="AP_INVOICE_DATE" />
  <ATTRIBUTE LABEL="AP INVOICE KEY" NAME="AP_INVOICE_KEY" />
</DIMENSION>
- <DIMENSION LABEL="AP INVOICE TYPES" NAME="AP_INVOICE_TYPE_D">
  <ATTRIBUTE LABEL="AP INVOICE TYPE" NAME="AP_INVOICE_TYPE" />
  <ATTRIBUTE LABEL="AP INVOICE TYPE KEY" NAME="AP_INVOICE_TYPE_KEY" />
</DIMENSION>
- <DIMENSION LABEL="AP PAYMENT TERMS" NAME="AP_PAYMENT_TERM_D">
  <ATTRIBUTE LABEL="AP PAYMENT TERM" NAME="AP_PAYMENT_TERM" />
  <ATTRIBUTE LABEL="AP PAYMENT TERM DESCRIPTION"
NAME="AP_PAYMENT_TERM_DESC" />
  <ATTRIBUTE LABEL="AP PAYMENT TERM KEY" NAME="AP_PAYMENT_TERM_KEY" />
</DIMENSION>
- <DIMENSION LABEL="PO AUTHORIZER" NAME="AUTHORIZER_D">
  <ATTRIBUTE LABEL="AUTHORIZER" NAME="AUTHORIZER" />
  <ATTRIBUTE LABEL="AUTHORIZER KEY" NAME="AUTHORIZER_KEY" />
</DIMENSION>
- <DIMENSION LABEL="BUYERS" NAME="BUYER_D">
  <ATTRIBUTE LABEL="BUYER" NAME="BUYER" />
  <ATTRIBUTE LABEL="AUTHORIZATION LIMIT" NAME="BUYER_AUTHORIZATION_LIMIT"
/>
  <ATTRIBUTE LABEL="END DATE ACTIVE" NAME="BUYER_END_DATE_ACTIVE" />
  <ATTRIBUTE LABEL="BUYER KEY" NAME="BUYER_KEY" />
  <ATTRIBUTE LABEL="START DATE ACTIVE" NAME="BUYER_START_DATE_ACTIVE" />
</DIMENSION>
- <DIMENSION LABEL="COMPANY" NAME="COMPANY_D">
  <ATTRIBUTE LABEL="COMPANY" NAME="COMPANY" />
  <ATTRIBUTE LABEL="COMPANY DESCRIPTION" NAME="COMPANY_DESC" />
  <ATTRIBUTE LABEL="COMPANY KEY" NAME="COMPANY_KEY" />
</DIMENSION>
- <DIMENSION LABEL="CURRENCY" NAME="CURRENCY_D">
  <ATTRIBUTE LABEL="CURRENCY" NAME="CURRENCY" />
  <ATTRIBUTE LABEL="CURRENCY DESCRIPTION" NAME="CURRENCY_DESC" />
  <ATTRIBUTE LABEL="CURRENCY KEY" NAME="CURRENCY_KEY" />
</DIMENSION>
```

FIG. 23C

2303

```
- <DIMENSION LABEL="DEPARTMENT" NAME="DEPARTMENT_D">
  <ATTRIBUTE LABEL="DEPARTMENT" NAME="DEPARTMENT" />
  <ATTRIBUTE LABEL="DEPARTMENT KEY" NAME="DEPARTMENT_KEY" />
  <ATTRIBUTE LABEL="DEPARTMENT DESCRIPTION" NAME="DEPARTMENT_DESC" />
</DIMENSION>
- <DIMENSION LABEL="DEPARTMENT ROLLUPS" NAME="DEPARTMENT_RLUP_D">
  <ATTRIBUTE LABEL="DEPARTMENT" NAME="DEPARTMENT" />
  <ATTRIBUTE LABEL="DEPARTMENT ROLLUP DESC" NAME="ROLLUP_DESC" />
  <ATTRIBUTE LABEL="DEPARTMENT ROLLUP CODE" NAME="ROLLUP_CODE" />
  <ATTRIBUTE LABEL="DEPARTMENT DESCRIPTION" NAME="DEPARTMENT_DESC" />
  <ATTRIBUTE LABEL="DEPARTMENT KEY" NAME="DEPARTMENT_KEY" />
</DIMENSION>
- <DIMENSION LABEL="AP DUE DATES" NAME="DUE_DATE_D">
  <ATTRIBUTE LABEL="DUE DATE KEY" NAME="DUE_DATE_KEY" />
  <ATTRIBUTE LABEL="DUE MONTH" NAME="DUE_MONTH" />
  <ATTRIBUTE LABEL="DUE PERIOD" NAME="DUE_PERIOD" />
  <ATTRIBUTE LABEL="DUE PERIOD KEY" NAME="DUE_PERIOD_KEY" />
  <ATTRIBUTE LABEL="DUE PERIOD QUARTER" NAME="DUE_PERIOD_QUARTER" />
  <ATTRIBUTE LABEL="DUE QUARTER" NAME="DUE_QUARTER" />
  <ATTRIBUTE LABEL="DUE WEEK ENDING" NAME="DUE_WEEK_ENDING" />
  <ATTRIBUTE LABEL="DUE YEAR" NAME="DUE_YEAR" />
</DIMENSION>
- <DIMENSION LABEL="INVOICE DATES" NAME="INVOICE_DATE_D">
  <ATTRIBUTE LABEL="INVOICE DATE KEY" NAME="INVOICE_DATE_KEY" />
  <ATTRIBUTE LABEL="INVOICE MONTH" NAME="INVOICE_MONTH" />
  <ATTRIBUTE LABEL="INVOICE PERIOD" NAME="INVOICE_PERIOD" />
  <ATTRIBUTE LABEL="INVOICE PERIOD KEY" NAME="INVOICE_PERIOD_KEY" />
  <ATTRIBUTE LABEL="INVOICE PERIOD QUARTER"
NAME="INVOICE_PERIOD_QUARTER" />
  <ATTRIBUTE LABEL="INVOICE QUARTER" NAME="INVOICE_QUARTER" />
  <ATTRIBUTE LABEL="INVOICE WEEK ENDING" NAME="INVOICE_WEEK_ENDING" />
  <ATTRIBUTE LABEL="INVOICE YEAR" NAME="INVOICE_YEAR" />
</DIMENSION>
- <DIMENSION LABEL="JE BATCHS" NAME="JE_BATCH_D">
  <ATTRIBUTE LABEL="ACTUAL FLAG" NAME="ACTUAL_FLAG" />
  <ATTRIBUTE LABEL="DEFAULT PERIOD NAME" NAME="DEFAULT_PERIOD_NAME" />
  <ATTRIBUTE LABEL="JE BATCH KEY" NAME="JE_BATCH_KEY" />
  <ATTRIBUTE LABEL="NAME" NAME="NAME" />
  <ATTRIBUTE LABEL="ORG ID" NAME="ORG_ID" />
  <ATTRIBUTE LABEL="DESCRIPTION" NAME="DESCRIPTION" />
  <ATTRIBUTE LABEL="DATE CREATED" NAME="DATE_CREATED" />
</DIMENSION>
```


FIG. 23D

2304

```
- <DIMENSION LABEL="ORGANIZATIONS" NAME="ORGANIZATION_D">
  <ATTRIBUTE LABEL="ORGANIZATION" NAME="ORGANIZATION" />
  <ATTRIBUTE LABEL="ORGANIZATION KEY" NAME="ORGANIZATION_KEY" />
  <ATTRIBUTE LABEL="ORGANIZATION TYPE" NAME="ORGANIZATION_TYPE" />
</DIMENSION>
- <DIMENSION LABEL="PA PROJECTS" NAME="PA_PROJECT_D">
  <ATTRIBUTE LABEL="PROJECT KEY" NAME="PA_PROJECT_KEY" />
  <ATTRIBUTE LABEL="PROJECT COMPLETE DATE"
NAME="PROJECT_COMPLETE_DATE" />
  <ATTRIBUTE LABEL="PROJECT MANAGER" NAME="PROJECT_MANAGER" />
  <ATTRIBUTE LABEL="PROJECT NAME" NAME="PROJECT_NAME" />
  <ATTRIBUTE LABEL="PROJECT NUMBER" NAME="PROJECT_NUMBER" />
  <ATTRIBUTE LABEL="PROJECT OFFICER" NAME="PROJECT_OFFICER" />
  <ATTRIBUTE LABEL="PROJECT SPONSOR" NAME="PROJECT_SPONSOR" />
  <ATTRIBUTE LABEL="PROJECT START DATE" NAME="PROJECT_START_DATE" />
  <ATTRIBUTE LABEL="PROJECT STATUS" NAME="PROJECT_STATUS" />
  <ATTRIBUTE LABEL="PROJECT TITLE" NAME="PROJECT_TITLE" />
  <ATTRIBUTE LABEL="PROJECT TYPE" NAME="PROJECT_TYPE" />
</DIMENSION>
- <DIMENSION LABEL="PA TASKS" NAME="PA_TASK_D">
  <ATTRIBUTE LABEL="PARENT TASK KEY" NAME="PARENT_TASK_KEY" />
  <ATTRIBUTE LABEL="TASK LOCATION" NAME="TASK_LOCATION" />
  <ATTRIBUTE LABEL="TASK NAME" NAME="TASK_NAME" />
  <ATTRIBUTE LABEL="TASK MANAGER" NAME="TASK_MANAGER" />
  <ATTRIBUTE LABEL="TOP TASK NAME" NAME="TOP_TASK_NAME" />
  <ATTRIBUTE LABEL="TOP TASK KEY" NAME="TOP_TASK_KEY" />
  <ATTRIBUTE LABEL="TASK WBS" NAME="TASK_WBS" />
  <ATTRIBUTE LABEL="TASK START DATE" NAME="TASK_START_DATE" />
  <ATTRIBUTE LABEL="TASK NUMBER" NAME="TASK_NUMBER" />
  <ATTRIBUTE LABEL="TASK DESCRIPTION" NAME="TASK_DESC" />
  <ATTRIBUTE LABEL="PARENT TASK NAME" NAME="PARENT_TASK_NAME" />
  <ATTRIBUTE LABEL="PROJECT KEY" NAME="PA_PROJECT_KEY" />
  <ATTRIBUTE LABEL="TASK COMPLETE DATE" NAME="TASK_COMPLETE_DATE" />
  <ATTRIBUTE LABEL="TASK KEY" NAME="PA_TASK_KEY" />
</DIMENSION>
```

FIG. 23E

2305

```
- <DIMENSION LABEL="PERIODS" NAME="PERIOD_D">
  <ATTRIBUTE LABEL="PERIOD" NAME="PERIOD" />
  <ATTRIBUTE LABEL="PERIOD END DATE" NAME="PERIOD_END_DATE" />
  <ATTRIBUTE LABEL="PERIOD KEY" NAME="PERIOD_KEY" />
  <ATTRIBUTE LABEL="PERIOD START DATE" NAME="PERIOD_START_DATE" />
  <ATTRIBUTE LABEL="PERIOD TYPE" NAME="PERIOD_TYPE" />
  <ATTRIBUTE LABEL="QUARTER" NAME="QUARTER" />
  <ATTRIBUTE LABEL="YEAR" NAME="YEAR" />
</DIMENSION>
- <DIMENSION LABEL="PRODUCT" NAME="PRODUCT_D">
  <ATTRIBUTE LABEL="PRODUCT" NAME="PRODUCT" />
  <ATTRIBUTE LABEL="PRODUCT DESCRIPTION" NAME="PRODUCT_DESC" />
  <ATTRIBUTE LABEL="PRODUCT KEY" NAME="PRODUCT_KEY" />
</DIMENSION>
- <DIMENSION LABEL="PA PROJECT CLASSES" NAME="PROJECT_CLASS_D">
  <ATTRIBUTE LABEL="PROJECT CLASS CATEGORY"
NAME="PROJECT_CLASS_CATEGORY" />
  <ATTRIBUTE LABEL="PROJECT CLASS CODE" NAME="PROJECT_CLASS_CODE" />
  <ATTRIBUTE LABEL="PROJECT CLASS DESCRIPTION"
NAME="PROJECT_CLASS_DESCRIPTION" />
  <ATTRIBUTE LABEL="PROJECT KEY" NAME="PROJECT_KEY" />
</DIMENSION>
- <DIMENSION LABEL="PO REQUESTORS" NAME="REQUESTOR_D">
  <ATTRIBUTE LABEL="REQUESTOR" NAME="REQUESTOR" />
  <ATTRIBUTE LABEL="REQUESTOR KEY" NAME="REQUESTOR_KEY" />
</DIMENSION>
- <DIMENSION LABEL="SUB-ACCOUNT" NAME="SUB_ACCOUNT_D">
  <ATTRIBUTE LABEL="SUB-ACCOUNT" NAME="SUB_ACCOUNT" />
  <ATTRIBUTE LABEL="SUB-ACCOUNT KEY" NAME="SUB_ACCOUNT_KEY" />
  <ATTRIBUTE LABEL="SUB-ACCOUNT DESCRIPTION" NAME="SUB_ACCOUNT_DESC" />
</DIMENSION>
- <DIMENSION LABEL="AP VENDORS" NAME="VENDOR_D">
  <ATTRIBUTE LABEL="ACTIVE END DATE" NAME="ACTIVE_END_DATE" />
  <ATTRIBUTE LABEL="ACTIVE FLAG" NAME="ACTIVE_FLAG" />
  <ATTRIBUTE LABEL="ACTIVE START DATE" NAME="ACTIVE_START_DATE" />
  <ATTRIBUTE LABEL="VENDOR SITE ADDRESS LINE1" NAME="ADDRESS_LINE1" />
  <ATTRIBUTE LABEL="VENDOR SITE ADDRESS LINE2" NAME="ADDRESS_LINE2" />
  <ATTRIBUTE LABEL="VENDOR SITE ADDRESS LINE3" NAME="ADDRESS_LINE3" />
  <ATTRIBUTE LABEL="VENDOR SITE AREA CODE" NAME="AREA_CODE" />
  <ATTRIBUTE LABEL="VENDOR SITE CITY" NAME="CITY" />
  <ATTRIBUTE LABEL="VENDOR HOLD REASON" NAME="HOLD_REASON" />
  <ATTRIBUTE LABEL="VENDOR SITE PHONE NUMBER" NAME="PHONE_NUMBER" />
```

FIG. 23F

2306

```
<ATTRIBUTE LABEL="VENDOR SITE PROVINCE" NAME="PROVINCE" />
<ATTRIBUTE LABEL="VENDOR SITE STATE" NAME="STATE" />
<ATTRIBUTE LABEL="VENDOR TAX FEDERAL FLAG"
NAME="TAX_FEDERAL_REPORT_FLAG" />
<ATTRIBUTE LABEL="VENDOR TAX REPORTING NAME"
NAME="TAX_REPORTING_NAME" />
<ATTRIBUTE LABEL="VENDOR TAX STATE FLAG" NAME="TAX_STATE_REPORT_FLAG"
/>
<ATTRIBUTE LABEL="VENDOR 1099 NUMBER" NAME="VENDOR_1099_NUM" />
<ATTRIBUTE LABEL="VENDOR 1099 TYPE" NAME="VENDOR_1099_TYPE" />
<ATTRIBUTE LABEL="VENDOR CORPORATE GROUP"
NAME="VENDOR_CORPORATE_GROUP" />
<ATTRIBUTE LABEL="VENDOR INDUSTRY CLASS"
NAME="VENDOR_INDUSTRY_CLASS" />
<ATTRIBUTE LABEL="VENDOR KEY" NAME="VENDOR_KEY" />
<ATTRIBUTE LABEL="VENDOR NAME" NAME="VENDOR_NAME" />
<ATTRIBUTE LABEL="VENDOR NUMBER" NAME="VENDOR_NUMBER" />
<ATTRIBUTE LABEL="VENDOR ORGANIZATION TYPE" NAME="VENDOR_ORG_TYPE" />
<ATTRIBUTE LABEL="VENDOR PAYMENT PRIORITY"
NAME="VENDOR_PAYMENT_PRIORITY" />
<ATTRIBUTE LABEL="VENDOR PAY GROUP" NAME="VENDOR_PAY_GROUP" />
<ATTRIBUTE LABEL="VENDOR SITE CODE" NAME="VENDOR_SITE_CODE" />
<ATTRIBUTE LABEL="VENDOR SITE KEY" NAME="VENDOR_SITE_KEY" />
<ATTRIBUTE LABEL="VENDOR TYPE" NAME="VENDOR_TYPE" />
<ATTRIBUTE LABEL="VENDOR SITE ZIP" NAME="ZIP" />
</DIMENSION>
<DIMENSION LABEL="AP INVOICE DETAILS" NAME="AP_INV_DETAIL_F">
<ATTRIBUTE LABEL="ACCOUNTING DATE" NAME="ACCOUNTING_DATE" />
<ATTRIBUTE LABEL="ACCOUNTING DATE KEY" NAME="ACCOUNTING_DATE_KEY" />
<ATTRIBUTE LABEL="ACCOUNT KEY" NAME="ACCOUNT_KEY" />
<ATTRIBUTE LABEL="APPROVAL STATUS" NAME="APPROVAL_STATUS" />
<ATTRIBUTE LABEL="AP INVOICE KEY" NAME="AP_INVOICE_KEY" />
<ATTRIBUTE LABEL="AP INVOICE TYPE KEY" NAME="AP_INVOICE_TYPE_KEY" />
<ATTRIBUTE LABEL="AP PAYMENT TERM KEY" NAME="AP_PAYMENT_TERM_KEY" />
<ATTRIBUTE LABEL="BUYER KEY" NAME="BUYER_KEY" />
<ATTRIBUTE LABEL="COMPANY KEY" NAME="COMPANY_KEY" />
<ATTRIBUTE LABEL="INVOICE CURRENCY CODE" NAME="CURRENCY_KEY" />
<ATTRIBUTE LABEL="DEPARTMENT KEY" NAME="DEPARTMENT_KEY" />
<ATTRIBUTE LABEL="DUE DATE" NAME="DUE_DATE" />
<ATTRIBUTE LABEL="DUE DATE KEY" NAME="DUE_DATE_KEY" />
<ATTRIBUTE LABEL="TOTAL INVOICE AMOUNT" NAME="INVOICE_AMOUNT" />
```

FIG. 23G

2307

```
<ATTRIBUTE LABEL="INVOICE DATE" NAME="INVOICE_DATE" />
<ATTRIBUTE LABEL="INVOICE DATE KEY" NAME="INVOICE_DATE_KEY" />
<ATTRIBUTE LABEL="INVOICE DESCRIPTION" NAME="INVOICE_DESC" />
<ATTRIBUTE LABEL="INVOICE ID KEY" NAME="INVOICE_ID_KEY" />
<ATTRIBUTE LABEL="INVOICE LINE DESCRIPTION" NAME="INVOICE_LINE_DESC" />
<ATTRIBUTE LABEL="INVOICE LINE NUMBER" NAME="INVOICE_LINE_NUMBER" />
<ATTRIBUTE LABEL="INVOICE LINE TYPE" NAME="INVOICE_LINE_TYPE" />
<ATTRIBUTE LABEL="INVOICE NUMBER" NAME="INVOICE_NUMBER" />
<ATTRIBUTE LABEL="INVOICE TAX AMOUNT" NAME="INVOICE_TAX_AMOUNT" />
<ATTRIBUTE LABEL="ORGANIZATION KEY" NAME="ORGANIZATION_KEY" />
<ATTRIBUTE LABEL="PAID AMOUNT" NAME="PAID_AMOUNT" />
<ATTRIBUTE LABEL="PA PROJECT KEY" NAME="PA_PROJECT_KEY" />
<ATTRIBUTE LABEL="PA TASK KEY" NAME="PA_TASK_KEY" />
<ATTRIBUTE LABEL="PERIOD KEY" NAME="PERIOD_KEY" />
<ATTRIBUTE LABEL="POSTED FLAG" NAME="POSTED_FLAG" />
<ATTRIBUTE LABEL="PO CREATION DATE" NAME="PO_CREATED_DATE" />
<ATTRIBUTE LABEL="PO NUMBER" NAME="PO_NUMBER" />
<ATTRIBUTE LABEL="PRODUCT KEY" NAME="PRODUCT_KEY" />
<ATTRIBUTE LABEL="RECURRING INVOICE FLAG" NAME="RECURRING_INVOICE_FLAG" /
X
<ATTRIBUTE LABEL="SUB-ACCOUNT KEY" NAME="SUB_ACCOUNT_KEY" />
<ATTRIBUTE LABEL="TRANSLATED CURRENCY CODE"
NAME="TRANSLATED_CURRENCY_CODE" />
<ATTRIBUTE LABEL="VENDOR KEY" NAME="VENDOR_KEY" />
</DIMENSION>
</DP_DIMENSIONS>
- <MEASURES LABEL="AP INVOICE DETAILS" NAME="AP_INV_DETAIL_F">
  <MEASURE LABEL="ACCOUNTING (PRE-AP) LAG DAYS"
NAME="ACCOUNTING_LAG_DAYS" />
  <MEASURE LABEL="INVOICE LINE AMOUNT" NAME="INVOICE_LINE_AMOUNT" />
  <MEASURE LABEL="INVOICE LINE EXCHANGE RATE VARIANCE"
NAME="INVOICE_LINE_EXCH_RATE_VAR" />
  <MEASURE LABEL="INVOICE LINE PRICE VARIANCE"
NAME="INVOICE_LINE_PRICE_VARIANCE" />
  <MEASURE LABEL="NUMBER OF INVOICE LINES" NAME="NUMBER_INVOICE_LINES" />
  <MEASURE LABEL="TRANSLATED CURRENCY AMOUNT"
NAME="TRANSLATED_CURRENCY_AMOUNT" />
  <MEASURE LABEL="UNPAID AMOUNT" NAME="UNPAID_AMOUNT" />
</MEASURES>
</DP_SCHEMA_DOC>
```

FIG. 24

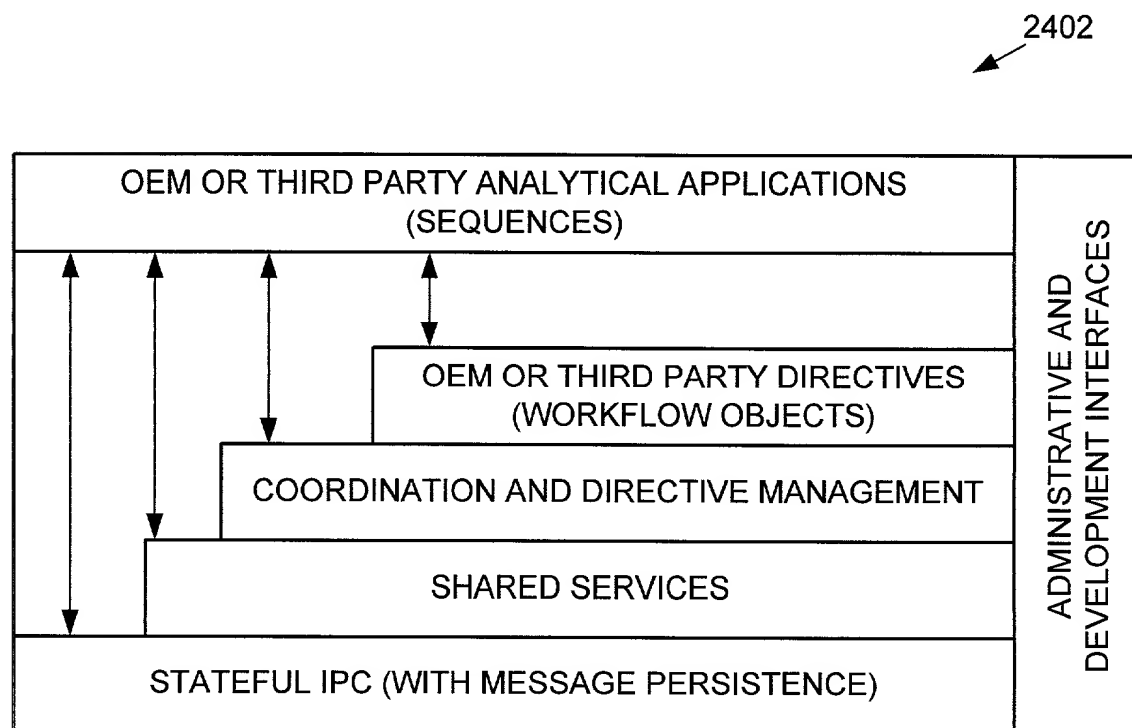


FIG. 25

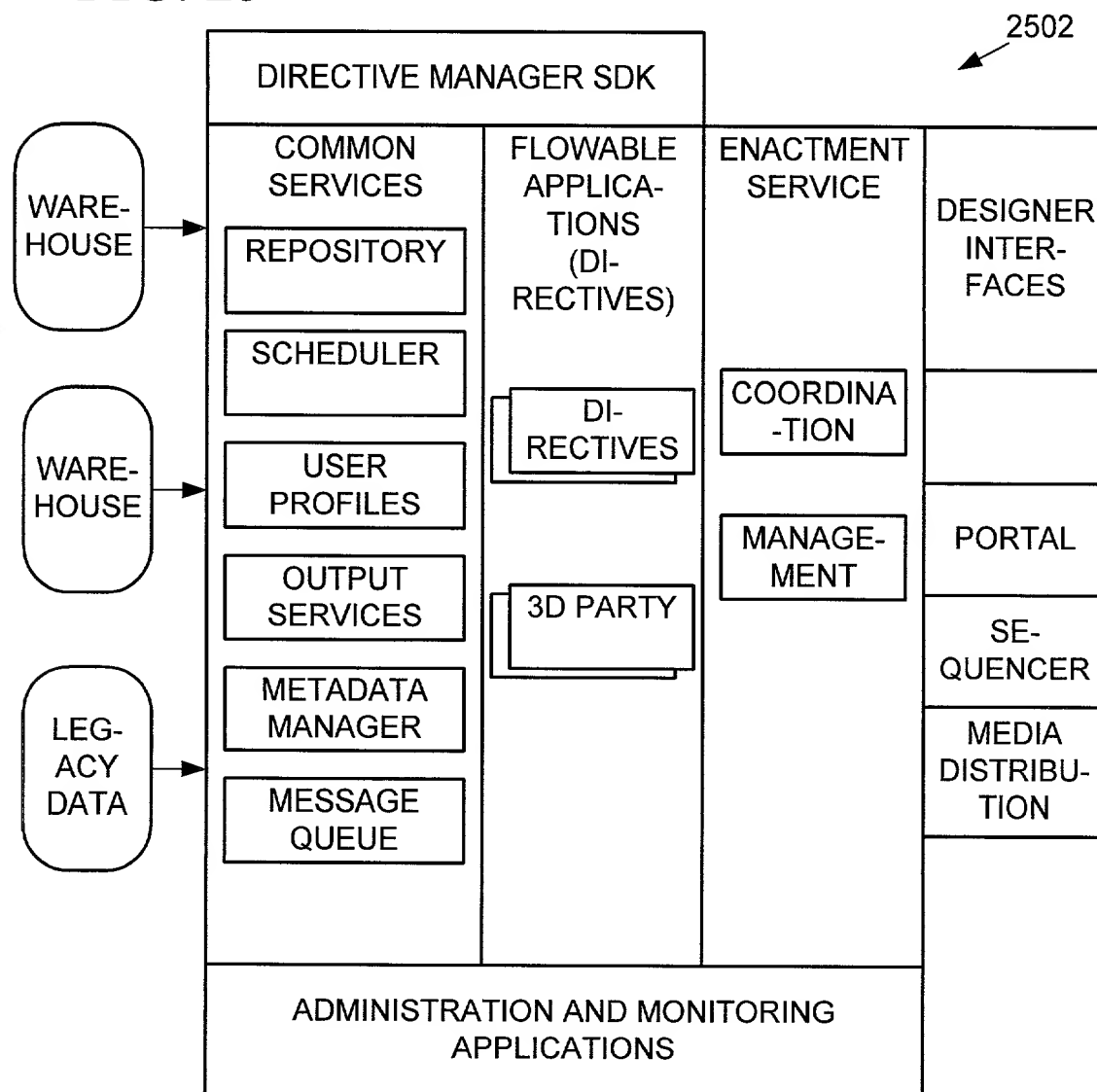


FIG. 26

